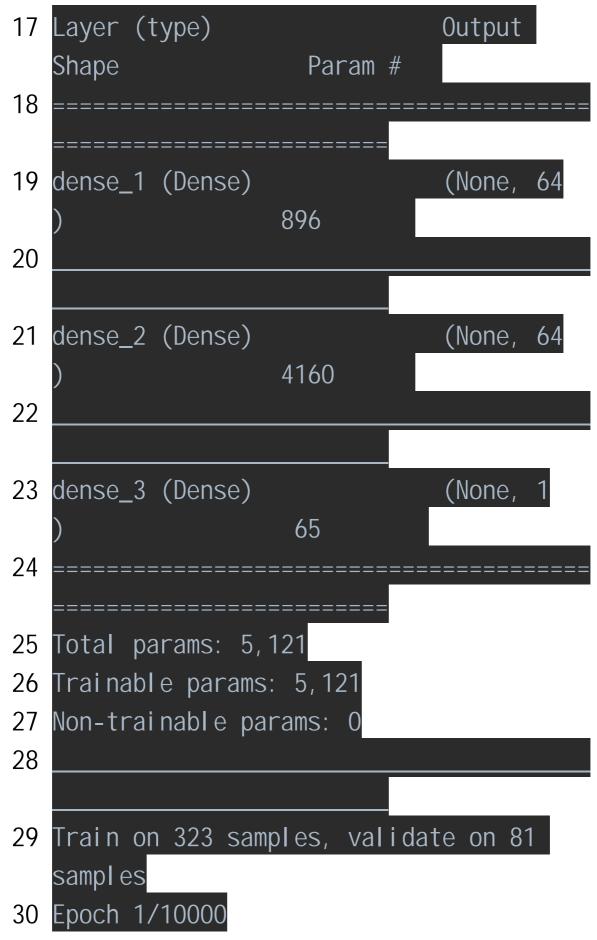```
1 ssh://root@103.254.67.181:10006/usr/bin/
   python -u /home/sunfengzhen/pycharm/
   keras_regress/boston01.py
2 Using TensorFlow backend.
3 ###############load dataset
   ##############
4 the type of train data is float64
5 the shape of train data is (404, 13)
6 the shape of train target is (404,)
7 the type of train target is float64
8 train target[:10]: [15.2 42.3 50. 21.1
   17.7 18.5 11.3 15.6 15.6 14.4]
9 the shape of test data is (102, 13)
10 the shape of test target is (102,)
11 ###############data proecess
   ##############
12 the shape of mean is (13,)
13 the shape of std is (13,)
14 ###############model train
   ##############
15 model.metrics_names = ['loss', '
   mean_absolute_error']
16
```

| Layer (type) | Output Shape | Param # |
|---|---|---|
| ================================================================= ||| 
| dense_1 (Dense) | (None, 64) | 896 |
| dense_2 (Dense) | (None, 64) | 4160 |
| dense_3 (Dense) | (None, 1) | 65 |
| ================================================================= ||| 

Total params: 5,121

Trainable params: 5,121

Non-trainable params: 0

Train on 323 samples, validate on 81 samples

Epoch 1/10000

31 2019-05-29 11:05:34.937966: I tensorflow/core/platform/cpu_feature_guard.cc:141] Your CPU supports instructions that this TensorFlow binary was not compiled to use: AVX2 FMA

32 2019-05-29 11:05:35.230175: I tensorflow/core/common_runtime/gpu/gpu_device.cc:1432] Found device 0 with properties:

33 name: GeForce GTX 1080 Ti major: 6 minor: 1 memoryClockRate(GHz): 1.582

34 pciBusID: 0000:82:00.0

35 totalMemory: 10.92GiB freeMemory: 10.76GiB

36 2019-05-29 11:05:35.230262: I tensorflow/core/common_runtime/gpu/gpu_device.cc:1511] Adding visible gpu devices: 0

37 2019-05-29 11:05:35.636332: I tensorflow/core/common_runtime/gpu/gpu_device.cc:982] Device interconnect StreamExecutor with strength 1 edge matrix:

38 2019-05-29 11:05:35.636443: I tensorflow/core/common_runtime/gpu/gpu_device.cc:988]      0

39 2019-05-29 11:05:35.636459: I tensorflow

```
39  /core/common_runtime/gpu/gpu_device.cc:
    1001] 0:   N
40  2019-05-29 11:05:35.636842: I tensorflow
    /core/common_runtime/gpu/gpu_device.cc:
    1115] Created TensorFlow device (/job:
    localhost/replica:0/task:0/device:GPU:0
    with 10409 MB memory) -> physical GPU (
    device: 0, name: GeForce GTX 1080 Ti,
    pci bus id: 0000:82:00.0, compute
    capability: 6.1)
41   - 1s - loss: 508.8570 -
    mean_absolute_error: 20.4707 - val_loss
    : 502.1782 - val_mean_absolute_error: 20
    .3382
42  Epoch 2/10000
43   - 0s - loss: 377.0670 -
    mean_absolute_error: 16.9365 - val_loss
    : 351.6663 - val_mean_absolute_error: 16
    .3737
44  Epoch 3/10000
45   - 0s - loss: 233.1376 -
    mean_absolute_error: 12.7086 - val_loss
    : 201.0621 - val_mean_absolute_error: 11
    .5551
```

```
46  Epoch 4/10000
47   - 0s - loss: 119.1073 - mean_absolute_error: 8.5366 - val_loss: 106.8299 - val_mean_absolute_error: 7.8862
48  Epoch 5/10000
49   - 0s - loss: 66.6506 - mean_absolute_error: 6.1033 - val_loss: 66.7304 - val_mean_absolute_error: 6.1965
50  Epoch 6/10000
51   - 0s - loss: 46.5216 - mean_absolute_error: 4.9055 - val_loss: 50.3796 - val_mean_absolute_error: 5.2820
52  Epoch 7/10000
53   - 0s - loss: 35.6644 - mean_absolute_error: 4.1863 - val_loss: 37.8124 - val_mean_absolute_error: 4.6576
54  Epoch 8/10000
55   - 0s - loss: 28.5578 - mean_absolute_error: 3.7078 - val_loss: 29.4733 - val_mean_absolute_error: 4.
```

```
55  2196
56  Epoch 9/10000
57   - 0s - loss: 24.2213 -
    mean_absolute_error: 3.4109 - val_loss:
    26.2472 - val_mean_absolute_error: 3.
    9858
58  Epoch 10/10000
59   - 0s - loss: 22.1722 -
    mean_absolute_error: 3.2803 - val_loss:
    24.3110 - val_mean_absolute_error: 3.
    9968
60
61  Epoch 00010: val_mean_absolute_error
    improved from inf to 3.99685, saving
    model to ./model/model_Epoch0010-
    val_mean_absolute_error4.00.h5
62  Epoch 11/10000
63   - 0s - loss: 19.9153 -
    mean_absolute_error: 3.1422 - val_loss:
    23.0588 - val_mean_absolute_error: 3.
    5317
64  Epoch 12/10000
65   - 0s - loss: 18.6735 -
    mean_absolute_error: 2.9657 - val_loss:
```

65 19.3226 - val_mean_absolute_error: 3.4762

66 Epoch 13/10000

67 - 0s - loss: 17.0796 - mean_absolute_error: 2.8401 - val_loss: 18.5031 - val_mean_absolute_error: 3.4244

68 Epoch 14/10000

69 - 0s - loss: 15.8806 - mean_absolute_error: 2.7602 - val_loss: 16.5286 - val_mean_absolute_error: 3.1774

70 Epoch 15/10000

71 - 0s - loss: 14.9331 - mean_absolute_error: 2.6634 - val_loss: 15.3848 - val_mean_absolute_error: 3.0312

72 Epoch 16/10000

73 - 0s - loss: 14.0725 - mean_absolute_error: 2.5630 - val_loss: 14.8925 - val_mean_absolute_error: 2.9480

74 Epoch 17/10000

75 - 0s - loss: 13.3512 -

75 mean_absolute_error: 2.4960 - val_loss: 13.9896 - val_mean_absolute_error: 2.8303

76 Epoch 18/10000

77 - 0s - loss: 13.0629 - mean_absolute_error: 2.4981 - val_loss: 15.3788 - val_mean_absolute_error: 3.1110

78 Epoch 19/10000

79 - 0s - loss: 12.6171 - mean_absolute_error: 2.4574 - val_loss: 13.3599 - val_mean_absolute_error: 2.8262

80 Epoch 20/10000

81 - 0s - loss: 11.7888 - mean_absolute_error: 2.3847 - val_loss: 13.6188 - val_mean_absolute_error: 2.8368

82

83 Epoch 00020: val_mean_absolute_error improved from 3.99685 to 2.83678, saving model to ./model/model_Epoch0020-val_mean_absolute_error2.84.h5

84 Epoch 21/10000

```
85    - 0s - loss: 11.7894 -
mean_absolute_error: 2.3426 - val_loss
: 12.8359 - val_mean_absolute_error: 2.
7281
86  Epoch 22/10000
87    - 0s - loss: 11.2370 -
mean_absolute_error: 2.2978 - val_loss
: 12.7378 - val_mean_absolute_error: 2.
7909
88  Epoch 23/10000
89    - 0s - loss: 10.9771 -
mean_absolute_error: 2.2869 - val_loss
: 12.3347 - val_mean_absolute_error: 2.
7578
90  Epoch 24/10000
91    - 0s - loss: 10.7601 -
mean_absolute_error: 2.2491 - val_loss
: 12.3628 - val_mean_absolute_error: 2.
6097
92  Epoch 25/10000
93    - 0s - loss: 10.2933 -
mean_absolute_error: 2.2198 - val_loss
: 13.8948 - val_mean_absolute_error: 2.
7856
```

```
94  Epoch 26/10000
95   - 0s - loss: 10.3395 -
mean_absolute_error: 2.1852 - val_loss
: 12.5965 - val_mean_absolute_error: 2.
6553
96  Epoch 27/10000
97   - 0s - loss: 10.0387 -
mean_absolute_error: 2.1834 - val_loss
: 12.6053 - val_mean_absolute_error: 2.
7038
98  Epoch 28/10000
99   - 0s - loss: 9.9576 -
mean_absolute_error: 2.1891 - val_loss
: 12.0698 - val_mean_absolute_error: 2.
6495
100 Epoch 29/10000
101  - 0s - loss: 9.5338 -
mean_absolute_error: 2.1261 - val_loss
: 12.7163 - val_mean_absolute_error: 2.
8390
102 Epoch 30/10000
103  - 0s - loss: 9.3056 -
mean_absolute_error: 2.1012 - val_loss
: 11.6176 - val_mean_absolute_error: 2.
```

```
103 6176

104

105 Epoch 00030: val_mean_absolute_error
    improved from 2.83678 to 2.61763,
    saving model to ./model/model_Epoch0030
    -val_mean_absolute_error2.62.h5

106 Epoch 31/10000

107  - 0s - loss: 9.5487 -
    mean_absolute_error: 2.1249 - val_loss
    : 12.1098 - val_mean_absolute_error: 2.
    6561

108 Epoch 32/10000

109  - 0s - loss: 8.9365 -
    mean_absolute_error: 2.0343 - val_loss
    : 15.7893 - val_mean_absolute_error: 2.
    8930

110 Epoch 33/10000

111  - 0s - loss: 9.1733 -
    mean_absolute_error: 2.1379 - val_loss
    : 12.4831 - val_mean_absolute_error: 2.
    5939

112 Epoch 34/10000

113  - 0s - loss: 8.7832 -
    mean_absolute_error: 2.0653 - val_loss
```

```
113  : 12.4745 - val_mean_absolute_error: 2.
     6719
114  Epoch 35/10000
115   - 0s - loss: 8.9244 -
     mean_absolute_error: 2.0582 - val_loss
     : 12.4537 - val_mean_absolute_error: 2.
     5946
116  Epoch 36/10000
117   - 0s - loss: 8.5267 -
     mean_absolute_error: 2.0779 - val_loss
     : 12.7375 - val_mean_absolute_error: 2.
     7257
118  Epoch 37/10000
119   - 0s - loss: 8.6095 -
     mean_absolute_error: 2.0246 - val_loss
     : 12.5228 - val_mean_absolute_error: 2.
     5267
120  Epoch 38/10000
121   - 0s - loss: 8.6112 -
     mean_absolute_error: 2.0274 - val_loss
     : 12.5877 - val_mean_absolute_error: 2.
     5362
122  Epoch 39/10000
123   - 0s - loss: 8.4096 -
```

```
123 mean_absolute_error: 1.9910 - val_loss
    : 12.5051 - val_mean_absolute_error: 2.
    5184
124 Epoch 40/10000
125  - 0s - loss: 8.1227 -
    mean_absolute_error: 1.9826 - val_loss
    : 12.3537 - val_mean_absolute_error: 2.
    5608
126
127 Epoch 00040: val_mean_absolute_error
    improved from 2.61763 to 2.56082,
    saving model to ./model/model_Epoch0040
    -val_mean_absolute_error2.56.h5
128 Epoch 41/10000
129  - 0s - loss: 8.0297 -
    mean_absolute_error: 1.9396 - val_loss
    : 12.1463 - val_mean_absolute_error: 2.
    5982
130 Epoch 42/10000
131  - 0s - loss: 8.2348 -
    mean_absolute_error: 1.9562 - val_loss
    : 12.9758 - val_mean_absolute_error: 2.
    5625
132 Epoch 43/10000
```

133   - 0s - loss: 7.9648 - mean_absolute_error: 1.9833 - val_loss: 12.0786 - val_mean_absolute_error: 2.5746

134 Epoch 44/10000

135   - 0s - loss: 7.9476 - mean_absolute_error: 1.9209 - val_loss: 15.3071 - val_mean_absolute_error: 2.7191

136 Epoch 45/10000

137   - 0s - loss: 7.8115 - mean_absolute_error: 1.9458 - val_loss: 12.3172 - val_mean_absolute_error: 2.6178

138 Epoch 46/10000

139   - 0s - loss: 7.7519 - mean_absolute_error: 1.8970 - val_loss: 13.3924 - val_mean_absolute_error: 2.6245

140 Epoch 47/10000

141   - 0s - loss: 7.6907 - mean_absolute_error: 1.9203 - val_loss: 12.5278 - val_mean_absolute_error: 2.4699

```
142  Epoch 48/10000
143   - 0s - loss: 7.4754 -
      mean_absolute_error: 1.8890 - val_loss
      : 12.3038 - val_mean_absolute_error: 2.
      5601
144  Epoch 49/10000
145   - 0s - loss: 7.6362 -
      mean_absolute_error: 1.8887 - val_loss
      : 12.2313 - val_mean_absolute_error: 2.
      5350
146  Epoch 50/10000
147   - 0s - loss: 7.5599 -
      mean_absolute_error: 1.8726 - val_loss
      : 11.9923 - val_mean_absolute_error: 2.
      4585
148
149  Epoch 00050: val_mean_absolute_error
      improved from 2.56082 to 2.45854,
      saving model to ./model/model_Epoch0050
      -val_mean_absolute_error2.46.h5
150  Epoch 51/10000
151   - 0s - loss: 7.4957 -
      mean_absolute_error: 1.8982 - val_loss
      : 12.4439 - val_mean_absolute_error: 2.
```

151 6541

152 Epoch 52/10000

153 - 0s - loss: 7.3561 - mean_absolute_error: 1.8711 - val_loss: 12.2916 - val_mean_absolute_error: 2.5589

154 Epoch 53/10000

155 - 0s - loss: 7.1150 - mean_absolute_error: 1.8399 - val_loss: 12.0207 - val_mean_absolute_error: 2.5144

156 Epoch 54/10000

157 - 0s - loss: 7.1536 - mean_absolute_error: 1.8609 - val_loss: 14.2695 - val_mean_absolute_error: 2.7237

158 Epoch 55/10000

159 - 0s - loss: 7.3549 - mean_absolute_error: 1.8630 - val_loss: 13.1265 - val_mean_absolute_error: 2.4830

160 Epoch 56/10000

161 - 0s - loss: 7.0151 - mean_absolute_error: 1.8336 - val_loss

161 `: 12.7181 - val_mean_absolute_error: 2.5833`

162 `Epoch 57/10000`

163 ` - 0s - loss: 7.1830 - mean_absolute_error: 1.8377 - val_loss: 12.6467 - val_mean_absolute_error: 2.5032`

164 `Epoch 58/10000`

165 ` - 0s - loss: 6.9233 - mean_absolute_error: 1.8006 - val_loss: 12.9391 - val_mean_absolute_error: 2.5442`

166 `Epoch 59/10000`

167 ` - 0s - loss: 6.9152 - mean_absolute_error: 1.8035 - val_loss: 14.1281 - val_mean_absolute_error: 2.5920`

168 `Epoch 60/10000`

169 ` - 0s - loss: 6.6614 - mean_absolute_error: 1.7891 - val_loss: 15.5446 - val_mean_absolute_error: 2.6221`

170

171 `Epoch 00060: val_mean_absolute_error`

```
171 did not improve from 2.45854
172 Epoch 61/10000
173  - 0s - loss: 7.0422 -
     mean_absolute_error: 1.8260 - val_loss
     : 12.3304 - val_mean_absolute_error: 2.
     4674
174 Epoch 62/10000
175  - 0s - loss: 6.8601 -
     mean_absolute_error: 1.8219 - val_loss
     : 12.8567 - val_mean_absolute_error: 2.
     5128
176 Epoch 63/10000
177  - 0s - loss: 6.5729 -
     mean_absolute_error: 1.7427 - val_loss
     : 16.2805 - val_mean_absolute_error: 2.
     7514
178 Epoch 64/10000
179  - 0s - loss: 6.6873 -
     mean_absolute_error: 1.8112 - val_loss
     : 13.7294 - val_mean_absolute_error: 2.
     6141
180 Epoch 65/10000
181  - 0s - loss: 6.4925 -
     mean_absolute_error: 1.7712 - val_loss
```

```
181  : 13.8488 - val_mean_absolute_error: 2.
     5839
182  Epoch 66/10000
183   - 0s - loss: 6.3370 -
     mean_absolute_error: 1.7626 - val_loss
     : 12.4611 - val_mean_absolute_error: 2.
     5212
184  Epoch 67/10000
185   - 0s - loss: 6.4373 -
     mean_absolute_error: 1.7643 - val_loss
     : 13.0092 - val_mean_absolute_error: 2.
     5384
186  Epoch 68/10000
187   - 0s - loss: 6.4051 -
     mean_absolute_error: 1.7779 - val_loss
     : 13.3328 - val_mean_absolute_error: 2.
     7080
188  Epoch 69/10000
189   - 0s - loss: 6.4513 -
     mean_absolute_error: 1.7229 - val_loss
     : 14.7567 - val_mean_absolute_error: 2.
     6862
190  Epoch 70/10000
191   - 0s - loss: 6.2459 -
```

```
191  mean_absolute_error: 1.7464 - val_loss
     : 12.9123 - val_mean_absolute_error: 2.
     5536
192
193  Epoch 00070: val_mean_absolute_error
     did not improve from 2.45854
194  Epoch 71/10000
195   - 0s - loss: 6.1774 -
     mean_absolute_error: 1.6919 - val_loss
     : 13.9759 - val_mean_absolute_error: 2.
     5164
196  Epoch 72/10000
197   - 0s - loss: 6.3357 -
     mean_absolute_error: 1.7462 - val_loss
     : 13.3034 - val_mean_absolute_error: 2.
     5839
198  Epoch 73/10000
199   - 0s - loss: 6.1997 -
     mean_absolute_error: 1.7343 - val_loss
     : 12.4309 - val_mean_absolute_error: 2.
     4936
200  Epoch 74/10000
201   - 0s - loss: 6.0883 -
     mean_absolute_error: 1.6695 - val_loss
```

```
201  : 13.0401 - val_mean_absolute_error: 2.
     4979
202  Epoch 75/10000
203   - 0s - loss: 6.2554 -
     mean_absolute_error: 1.7133 - val_loss
     : 13.3727 - val_mean_absolute_error: 2.
     4556
204  Epoch 76/10000
205   - 0s - loss: 6.0023 -
     mean_absolute_error: 1.6996 - val_loss
     : 12.8556 - val_mean_absolute_error: 2.
     4618
206  Epoch 77/10000
207   - 0s - loss: 5.9766 -
     mean_absolute_error: 1.6278 - val_loss
     : 13.0897 - val_mean_absolute_error: 2.
     4513
208  Epoch 78/10000
209   - 0s - loss: 6.0793 -
     mean_absolute_error: 1.6577 - val_loss
     : 12.8823 - val_mean_absolute_error: 2.
     4754
210  Epoch 79/10000
211   - 0s - loss: 5.7519 -
```

211 mean_absolute_error: 1.6324 - val_loss
: 13.3224 - val_mean_absolute_error: 2.
6205

212 Epoch 80/10000

213 - 0s - loss: 5.7596 -
mean_absolute_error: 1.6362 - val_loss
: 12.9500 - val_mean_absolute_error: 2.
5735

214

215 Epoch 00080: val_mean_absolute_error
did not improve from 2.45854

216 Epoch 81/10000

217 - 0s - loss: 5.7959 -
mean_absolute_error: 1.6462 - val_loss
: 13.0019 - val_mean_absolute_error: 2.
6597

218 Epoch 82/10000

219 - 0s - loss: 5.7090 -
mean_absolute_error: 1.6289 - val_loss
: 12.8836 - val_mean_absolute_error: 2.
5374

220 Epoch 83/10000

221 - 0s - loss: 5.6286 -
mean_absolute_error: 1.6220 - val_loss

```
221  : 13.6477 - val_mean_absolute_error: 2.4625
222  Epoch 84/10000
223   - 0s - loss: 5.7457 - mean_absolute_error: 1.6571 - val_loss: 12.6499 - val_mean_absolute_error: 2.4417
224  Epoch 85/10000
225   - 0s - loss: 5.6964 - mean_absolute_error: 1.6348 - val_loss: 12.9228 - val_mean_absolute_error: 2.4512
226  Epoch 86/10000
227   - 0s - loss: 5.6430 - mean_absolute_error: 1.6679 - val_loss: 13.7091 - val_mean_absolute_error: 2.4371
228  Epoch 87/10000
229   - 0s - loss: 5.5740 - mean_absolute_error: 1.6226 - val_loss: 13.9593 - val_mean_absolute_error: 2.4862
230  Epoch 88/10000
231   - 0s - loss: 5.5570 -
```

231 mean_absolute_error: 1.6255 - val_loss: 13.3627 - val_mean_absolute_error: 2.5253

232 Epoch 89/10000

233 - 0s - loss: 5.5249 - mean_absolute_error: 1.6002 - val_loss: 13.3536 - val_mean_absolute_error: 2.4942

234 Epoch 90/10000

235 - 0s - loss: 5.4470 - mean_absolute_error: 1.5859 - val_loss: 13.5879 - val_mean_absolute_error: 2.4849

236

237 Epoch 00090: val_mean_absolute_error did not improve from 2.45854

238 Epoch 91/10000

239 - 0s - loss: 5.3638 - mean_absolute_error: 1.6028 - val_loss: 14.8538 - val_mean_absolute_error: 2.8569

240 Epoch 92/10000

241 - 0s - loss: 5.4877 - mean_absolute_error: 1.6167 - val_loss

241 : 12.7267 - val_mean_absolute_error: 2.5878

242 Epoch 93/10000

243 - 0s - loss: 5.2634 - mean_absolute_error: 1.5778 - val_loss: 14.3206 - val_mean_absolute_error: 2.4848

244 Epoch 94/10000

245 - 0s - loss: 5.2590 - mean_absolute_error: 1.5730 - val_loss: 13.5896 - val_mean_absolute_error: 2.6795

246 Epoch 95/10000

247 - 0s - loss: 5.1998 - mean_absolute_error: 1.5744 - val_loss: 13.1699 - val_mean_absolute_error: 2.4703

248 Epoch 96/10000

249 - 0s - loss: 4.9457 - mean_absolute_error: 1.5331 - val_loss: 13.9732 - val_mean_absolute_error: 2.4181

250 Epoch 97/10000

251 - 0s - loss: 5.2812 -

251 mean_absolute_error: 1.5826 - val_loss
: 12.9996 - val_mean_absolute_error: 2.
5964

252 Epoch 98/10000

253 - 0s - loss: 5.3232 -
mean_absolute_error: 1.5817 - val_loss
: 12.7469 - val_mean_absolute_error: 2.
4761

254 Epoch 99/10000

255 - 0s - loss: 4.9620 -
mean_absolute_error: 1.5284 - val_loss
: 13.1238 - val_mean_absolute_error: 2.
4643

256 Epoch 100/10000

257 - 0s - loss: 5.1833 -
mean_absolute_error: 1.5380 - val_loss
: 14.0637 - val_mean_absolute_error: 2.
4597

258

259 Epoch 00100: val_mean_absolute_error
did not improve from 2.45854

260 Epoch 101/10000

261 - 0s - loss: 5.0293 -
mean_absolute_error: 1.5305 - val_loss

261 : 15.5031 - val_mean_absolute_error: 2.5447

262 Epoch 102/10000

263 - 0s - loss: 4.9056 - mean_absolute_error: 1.5570 - val_loss: 15.6589 - val_mean_absolute_error: 2.5277

264 Epoch 103/10000

265 - 0s - loss: 5.0046 - mean_absolute_error: 1.5583 - val_loss: 14.5436 - val_mean_absolute_error: 2.4849

266 Epoch 104/10000

267 - 0s - loss: 5.0450 - mean_absolute_error: 1.5547 - val_loss: 13.1390 - val_mean_absolute_error: 2.4331

268 Epoch 105/10000

269 - 0s - loss: 4.7754 - mean_absolute_error: 1.5188 - val_loss: 13.7144 - val_mean_absolute_error: 2.4609

270 Epoch 106/10000

271 - 0s - loss: 5.0500 -

271 mean_absolute_error: 1.5471 - val_loss: 14.8180 - val_mean_absolute_error: 2.5740

272 Epoch 107/10000

273 - 0s - loss: 4.8728 - mean_absolute_error: 1.4891 - val_loss: 13.8454 - val_mean_absolute_error: 2.4251

274 Epoch 108/10000

275 - 0s - loss: 4.7332 - mean_absolute_error: 1.4691 - val_loss: 13.6337 - val_mean_absolute_error: 2.6243

276 Epoch 109/10000

277 - 0s - loss: 4.6060 - mean_absolute_error: 1.4767 - val_loss: 13.6645 - val_mean_absolute_error: 2.4436

278 Epoch 110/10000

279 - 0s - loss: 4.6188 - mean_absolute_error: 1.4979 - val_loss: 12.9895 - val_mean_absolute_error: 2.4880

280

281 Epoch 00110: val_mean_absolute_error did not improve from 2.45854

282 Epoch 111/10000

283 - 0s - loss: 4.7260 - mean_absolute_error: 1.5002 - val_loss: 14.2647 - val_mean_absolute_error: 2.5062

284 Epoch 112/10000

285 - 0s - loss: 4.8011 - mean_absolute_error: 1.4700 - val_loss: 13.2491 - val_mean_absolute_error: 2.5159

286 Epoch 113/10000

287 - 0s - loss: 4.7271 - mean_absolute_error: 1.4957 - val_loss: 12.8246 - val_mean_absolute_error: 2.5318

288 Epoch 114/10000

289 - 0s - loss: 4.6512 - mean_absolute_error: 1.4513 - val_loss: 13.4932 - val_mean_absolute_error: 2.4297

290 Epoch 115/10000

291 - 0s - loss: 4.6407 -

291 mean_absolute_error: 1.4448 - val_loss: 13.5309 - val_mean_absolute_error: 2.4035

292 Epoch 116/10000

293 - 0s - loss: 4.4667 - mean_absolute_error: 1.4160 - val_loss: 14.9832 - val_mean_absolute_error: 2.5410

294 Epoch 117/10000

295 - 0s - loss: 4.4219 - mean_absolute_error: 1.4754 - val_loss: 13.7533 - val_mean_absolute_error: 2.3929

296 Epoch 118/10000

297 - 0s - loss: 4.5402 - mean_absolute_error: 1.4637 - val_loss: 13.8223 - val_mean_absolute_error: 2.4106

298 Epoch 119/10000

299 - 0s - loss: 4.5026 - mean_absolute_error: 1.4735 - val_loss: 13.3173 - val_mean_absolute_error: 2.4555

300 Epoch 120/10000

301 - 0s - loss: 4.4632 - mean_absolute_error: 1.4456 - val_loss: 13.2312 - val_mean_absolute_error: 2.4173

302

303 Epoch 00120: val_mean_absolute_error improved from 2.45854 to 2.41731, saving model to ./model/model_Epoch0120-val_mean_absolute_error2.42.h5

304 Epoch 121/10000

305 - 0s - loss: 4.4761 - mean_absolute_error: 1.4250 - val_loss: 16.6304 - val_mean_absolute_error: 2.7050

306 Epoch 122/10000

307 - 0s - loss: 4.6561 - mean_absolute_error: 1.4688 - val_loss: 15.6400 - val_mean_absolute_error: 2.5128

308 Epoch 123/10000

309 - 0s - loss: 4.3071 - mean_absolute_error: 1.4362 - val_loss: 13.9746 - val_mean_absolute_error: 2.6208

```
310  Epoch 124/10000
311   - 0s - loss: 4.3706 -
     mean_absolute_error: 1.4417 - val_loss
     : 13.5181 - val_mean_absolute_error: 2.
     5104
312  Epoch 125/10000
313   - 0s - loss: 4.2669 -
     mean_absolute_error: 1.4170 - val_loss
     : 13.7394 - val_mean_absolute_error: 2.
     4933
314  Epoch 126/10000
315   - 0s - loss: 4.2876 -
     mean_absolute_error: 1.4605 - val_loss
     : 13.5563 - val_mean_absolute_error: 2.
     3906
316  Epoch 127/10000
317   - 0s - loss: 4.4309 -
     mean_absolute_error: 1.4361 - val_loss
     : 14.3062 - val_mean_absolute_error: 2.
     4536
318  Epoch 128/10000
319   - 0s - loss: 4.0691 -
     mean_absolute_error: 1.3975 - val_loss
     : 13.7712 - val_mean_absolute_error: 2.
```

319 4211

320 Epoch 129/10000

321 - 0s - loss: 4.1112 - mean_absolute_error: 1.4281 - val_loss: 13.4013 - val_mean_absolute_error: 2.4146

322 Epoch 130/10000

323 - 0s - loss: 4.2188 - mean_absolute_error: 1.4310 - val_loss: 14.9179 - val_mean_absolute_error: 2.5752

324

325 Epoch 00130: val_mean_absolute_error did not improve from 2.41731

326 Epoch 131/10000

327 - 0s - loss: 4.1455 - mean_absolute_error: 1.4184 - val_loss: 13.6284 - val_mean_absolute_error: 2.4262

328 Epoch 132/10000

329 - 0s - loss: 4.1086 - mean_absolute_error: 1.3804 - val_loss: 14.6837 - val_mean_absolute_error: 2.4741

```
330  Epoch 133/10000
331   - 0s - loss: 4.0551 -
mean_absolute_error: 1.4008 - val_loss
: 14.8289 - val_mean_absolute_error: 2.
4647
332  Epoch 134/10000
333   - 0s - loss: 4.0402 -
mean_absolute_error: 1.3600 - val_loss
: 13.2224 - val_mean_absolute_error: 2.
3943
334  Epoch 135/10000
335   - 0s - loss: 4.0246 -
mean_absolute_error: 1.4158 - val_loss
: 13.7612 - val_mean_absolute_error: 2.
5837
336  Epoch 136/10000
337   - 0s - loss: 4.1324 -
mean_absolute_error: 1.3809 - val_loss
: 13.3615 - val_mean_absolute_error: 2.
4132
338  Epoch 137/10000
339   - 0s - loss: 4.1333 -
mean_absolute_error: 1.4200 - val_loss
: 13.4753 - val_mean_absolute_error: 2.
```

339 3824

340 Epoch 138/10000

341 - 0s - loss: 4.1006 - mean_absolute_error: 1.4123 - val_loss: 13.2317 - val_mean_absolute_error: 2.5027

342 Epoch 139/10000

343 - 0s - loss: 3.9231 - mean_absolute_error: 1.3650 - val_loss: 13.2198 - val_mean_absolute_error: 2.4040

344 Epoch 140/10000

345 - 0s - loss: 3.9884 - mean_absolute_error: 1.3936 - val_loss: 13.6991 - val_mean_absolute_error: 2.4446

346

347 Epoch 00140: val_mean_absolute_error did not improve from 2.41731

348 Epoch 141/10000

349 - 0s - loss: 3.8466 - mean_absolute_error: 1.3519 - val_loss: 13.4792 - val_mean_absolute_error: 2.4831

```
350  Epoch 142/10000
351   - 0s - loss: 3.7813 -
mean_absolute_error: 1.3743 - val_loss
: 14.5342 - val_mean_absolute_error: 2.
4961
352  Epoch 143/10000
353   - 0s - loss: 3.9038 -
mean_absolute_error: 1.3956 - val_loss
: 13.9396 - val_mean_absolute_error: 2.
4406
354  Epoch 144/10000
355   - 0s - loss: 3.9363 -
mean_absolute_error: 1.3592 - val_loss
: 13.8653 - val_mean_absolute_error: 2.
3873
356  Epoch 145/10000
357   - 0s - loss: 3.6789 -
mean_absolute_error: 1.3423 - val_loss
: 14.0408 - val_mean_absolute_error: 2.
6104
358  Epoch 146/10000
359   - 0s - loss: 3.9000 -
mean_absolute_error: 1.3731 - val_loss
: 14.4238 - val_mean_absolute_error: 2.
```

```
359  4165
360  Epoch 147/10000
361   - 0s - loss: 4.1753 -
     mean_absolute_error: 1.4052 - val_loss
     : 13.6717 - val_mean_absolute_error: 2.
     3827
362  Epoch 148/10000
363   - 0s - loss: 3.6750 -
     mean_absolute_error: 1.2982 - val_loss
     : 14.3248 - val_mean_absolute_error: 2.
     5185
364  Epoch 149/10000
365   - 0s - loss: 3.8542 -
     mean_absolute_error: 1.3396 - val_loss
     : 15.4329 - val_mean_absolute_error: 2.
     4428
366  Epoch 150/10000
367   - 0s - loss: 3.7479 -
     mean_absolute_error: 1.3033 - val_loss
     : 13.8370 - val_mean_absolute_error: 2.
     4211
368
369  Epoch 00150: val_mean_absolute_error
     did not improve from 2.41731
```

370 Epoch 151/10000
371 - 0s - loss: 3.7807 - mean_absolute_error: 1.3284 - val_loss: 14.6462 - val_mean_absolute_error: 2.3955
372 Epoch 152/10000
373 - 0s - loss: 3.7666 - mean_absolute_error: 1.3265 - val_loss: 13.4395 - val_mean_absolute_error: 2.4403
374 Epoch 153/10000
375 - 0s - loss: 3.8173 - mean_absolute_error: 1.3477 - val_loss: 13.7166 - val_mean_absolute_error: 2.3924
376 Epoch 154/10000
377 - 0s - loss: 3.5425 - mean_absolute_error: 1.2959 - val_loss: 14.4431 - val_mean_absolute_error: 2.6686
378 Epoch 155/10000
379 - 0s - loss: 3.7825 - mean_absolute_error: 1.3310 - val_loss: 13.8088 - val_mean_absolute_error: 2.

379 4688

380 Epoch 156/10000

381 - 0s - loss: 3.6538 - mean_absolute_error: 1.3102 - val_loss: 13.7611 - val_mean_absolute_error: 2.4475

382 Epoch 157/10000

383 - 0s - loss: 3.7245 - mean_absolute_error: 1.3132 - val_loss: 15.0568 - val_mean_absolute_error: 2.4247

384 Epoch 158/10000

385 - 0s - loss: 3.6386 - mean_absolute_error: 1.3548 - val_loss: 15.4886 - val_mean_absolute_error: 2.5458

386 Epoch 159/10000

387 - 0s - loss: 3.7774 - mean_absolute_error: 1.3810 - val_loss: 14.2584 - val_mean_absolute_error: 2.3867

388 Epoch 160/10000

389 - 0s - loss: 3.6316 - mean_absolute_error: 1.3275 - val_loss

```
389  : 13.9726 - val_mean_absolute_error: 2.
     4078

390

391  Epoch 00160: val_mean_absolute_error
     improved from 2.41731 to 2.40778,
     saving model to ./model/model_Epoch0160
     -val_mean_absolute_error2.41.h5

392  Epoch 161/10000

393   - 0s - loss: 3.6482 -
     mean_absolute_error: 1.2964 - val_loss
     : 15.4859 - val_mean_absolute_error: 2.
     4212

394  Epoch 162/10000

395   - 0s - loss: 3.5675 -
     mean_absolute_error: 1.2957 - val_loss
     : 15.5034 - val_mean_absolute_error: 2.
     3820

396  Epoch 163/10000

397   - 0s - loss: 3.6060 -
     mean_absolute_error: 1.2962 - val_loss
     : 15.0549 - val_mean_absolute_error: 2.
     4616

398  Epoch 164/10000

399   - 0s - loss: 3.4726 -
```

```
399  mean_absolute_error: 1.3086 - val_loss
     : 14.9061 - val_mean_absolute_error: 2.
     3588
400  Epoch 165/10000
401   - 0s - loss: 3.6794 -
     mean_absolute_error: 1.3153 - val_loss
     : 13.7839 - val_mean_absolute_error: 2.
     4864
402  Epoch 166/10000
403   - 0s - loss: 3.7371 -
     mean_absolute_error: 1.3539 - val_loss
     : 13.9673 - val_mean_absolute_error: 2.
     3452
404  Epoch 167/10000
405   - 0s - loss: 3.3578 -
     mean_absolute_error: 1.2785 - val_loss
     : 14.4485 - val_mean_absolute_error: 2.
     4760
406  Epoch 168/10000
407   - 0s - loss: 3.3720 -
     mean_absolute_error: 1.2868 - val_loss
     : 14.1168 - val_mean_absolute_error: 2.
     4263
408  Epoch 169/10000
```

```
409    - 0s - loss: 3.3311 -
       mean_absolute_error: 1.2700 - val_loss
       : 14.1819 - val_mean_absolute_error: 2.
       4602
410  Epoch 170/10000
411    - 0s - loss: 3.7841 -
       mean_absolute_error: 1.3124 - val_loss
       : 16.5750 - val_mean_absolute_error: 2.
       5096
412
413  Epoch 00170: val_mean_absolute_error
       did not improve from 2.40778
414  Epoch 171/10000
415    - 0s - loss: 3.5035 -
       mean_absolute_error: 1.3032 - val_loss
       : 15.9505 - val_mean_absolute_error: 2.
       4628
416  Epoch 172/10000
417    - 0s - loss: 3.4771 -
       mean_absolute_error: 1.2604 - val_loss
       : 13.5665 - val_mean_absolute_error: 2.
       5391
418  Epoch 173/10000
419    - 0s - loss: 3.3360 -
```

419 mean_absolute_error: 1.2582 - val_loss: 15.5843 - val_mean_absolute_error: 2.4070

420 Epoch 174/10000

421 - 0s - loss: 3.4872 - mean_absolute_error: 1.2901 - val_loss: 14.3084 - val_mean_absolute_error: 2.3939

422 Epoch 175/10000

423 - 0s - loss: 3.4222 - mean_absolute_error: 1.2782 - val_loss: 13.7511 - val_mean_absolute_error: 2.4232

424 Epoch 176/10000

425 - 0s - loss: 3.3319 - mean_absolute_error: 1.2399 - val_loss: 13.6530 - val_mean_absolute_error: 2.4643

426 Epoch 177/10000

427 - 0s - loss: 3.3470 - mean_absolute_error: 1.2410 - val_loss: 14.0897 - val_mean_absolute_error: 2.4139

428 Epoch 178/10000

```
429   - 0s - loss: 3.1792 -
      mean_absolute_error: 1.2286 - val_loss
      : 14.6261 - val_mean_absolute_error: 2.
      4106
430   Epoch 179/10000
431   - 0s - loss: 3.3377 -
      mean_absolute_error: 1.2557 - val_loss
      : 15.8980 - val_mean_absolute_error: 2.
      5232
432   Epoch 180/10000
433   - 0s - loss: 3.2160 -
      mean_absolute_error: 1.2167 - val_loss
      : 14.7078 - val_mean_absolute_error: 2.
      4482
434
435   Epoch 00180: val_mean_absolute_error
      did not improve from 2.40778
436   Epoch 181/10000
437   - 0s - loss: 3.4325 -
      mean_absolute_error: 1.2511 - val_loss
      : 15.5223 - val_mean_absolute_error: 2.
      6207
438   Epoch 182/10000
439   - 0s - loss: 3.3135 -
```

439 mean_absolute_error: 1.2275 - val_loss: 13.6721 - val_mean_absolute_error: 2.4526

440 Epoch 183/10000

441 - 0s - loss: 3.2691 - mean_absolute_error: 1.1872 - val_loss: 14.4087 - val_mean_absolute_error: 2.4031

442 Epoch 184/10000

443 - 0s - loss: 3.1561 - mean_absolute_error: 1.2373 - val_loss: 14.4410 - val_mean_absolute_error: 2.3893

444 Epoch 185/10000

445 - 0s - loss: 3.1449 - mean_absolute_error: 1.2159 - val_loss: 14.0137 - val_mean_absolute_error: 2.4724

446 Epoch 186/10000

447 - 0s - loss: 3.1663 - mean_absolute_error: 1.2324 - val_loss: 13.9958 - val_mean_absolute_error: 2.4142

448 Epoch 187/10000

```
449   - 0s - loss: 3.2256 -
mean_absolute_error: 1.2207 - val_loss
: 14.0745 - val_mean_absolute_error: 2.
3685
450 Epoch 188/10000
451   - 0s - loss: 3.1972 -
mean_absolute_error: 1.2269 - val_loss
: 15.0055 - val_mean_absolute_error: 2.
6795
452 Epoch 189/10000
453   - 0s - loss: 3.2783 -
mean_absolute_error: 1.2509 - val_loss
: 14.3020 - val_mean_absolute_error: 2.
4139
454 Epoch 190/10000
455   - 0s - loss: 3.0791 -
mean_absolute_error: 1.1898 - val_loss
: 15.0499 - val_mean_absolute_error: 2.
3961
456
457 Epoch 00190: val_mean_absolute_error
improved from 2.40778 to 2.39609,
saving model to ./model/model_Epoch0190
-val_mean_absolute_error2.40.h5
```

```
458  Epoch 191/10000
459   - 0s - loss: 3.0325 -
mean_absolute_error: 1.2678 - val_loss
: 15.3679 - val_mean_absolute_error: 2.
8008
460  Epoch 192/10000
461   - 0s - loss: 3.4531 -
mean_absolute_error: 1.3084 - val_loss
: 14.7711 - val_mean_absolute_error: 2.
5330
462  Epoch 193/10000
463   - 0s - loss: 3.1292 -
mean_absolute_error: 1.2138 - val_loss
: 14.5937 - val_mean_absolute_error: 2.
4041
464  Epoch 194/10000
465   - 0s - loss: 3.0802 -
mean_absolute_error: 1.1800 - val_loss
: 14.6046 - val_mean_absolute_error: 2.
4718
466  Epoch 195/10000
467   - 0s - loss: 2.9206 -
mean_absolute_error: 1.1623 - val_loss
: 14.9742 - val_mean_absolute_error: 2.
```

467 3340

468 Epoch 196/10000

469 - 0s - loss: 3.0579 - mean_absolute_error: 1.2232 - val_loss: 14.2280 - val_mean_absolute_error: 2.3048

470 Epoch 197/10000

471 - 0s - loss: 3.2301 - mean_absolute_error: 1.2337 - val_loss: 13.9735 - val_mean_absolute_error: 2.3674

472 Epoch 198/10000

473 - 0s - loss: 3.0111 - mean_absolute_error: 1.1821 - val_loss: 16.7211 - val_mean_absolute_error: 2.4829

474 Epoch 199/10000

475 - 0s - loss: 3.1437 - mean_absolute_error: 1.2537 - val_loss: 14.5429 - val_mean_absolute_error: 2.4753

476 Epoch 200/10000

477 - 0s - loss: 2.9201 - mean_absolute_error: 1.1577 - val_loss

477 : 14.4668 - val_mean_absolute_error: 2.5071

478

479 Epoch 00200: val_mean_absolute_error did not improve from 2.39609

480 Epoch 201/10000

481 - 0s - loss: 2.8936 - mean_absolute_error: 1.2036 - val_loss: 15.0156 - val_mean_absolute_error: 2.7976

482 Epoch 202/10000

483 - 0s - loss: 3.0635 - mean_absolute_error: 1.1905 - val_loss: 15.3475 - val_mean_absolute_error: 2.4586

484 Epoch 203/10000

485 - 0s - loss: 2.8836 - mean_absolute_error: 1.2086 - val_loss: 14.6499 - val_mean_absolute_error: 2.4464

486 Epoch 204/10000

487 - 0s - loss: 3.0110 - mean_absolute_error: 1.2234 - val_loss: 15.2639 - val_mean_absolute_error: 2.

487 5076

488 Epoch 205/10000

489 - 0s - loss: 3.0484 - mean_absolute_error: 1.1808 - val_loss: 15.3062 - val_mean_absolute_error: 2.3934

490 Epoch 206/10000

491 - 0s - loss: 2.9857 - mean_absolute_error: 1.1822 - val_loss: 14.4578 - val_mean_absolute_error: 2.4569

492 Epoch 207/10000

493 - 0s - loss: 2.9652 - mean_absolute_error: 1.1830 - val_loss: 15.5116 - val_mean_absolute_error: 2.4508

494 Epoch 208/10000

495 - 0s - loss: 3.0027 - mean_absolute_error: 1.1728 - val_loss: 16.9804 - val_mean_absolute_error: 2.5010

496 Epoch 209/10000

497 - 0s - loss: 2.8897 - mean_absolute_error: 1.1776 - val_loss

497 : 14.4572 - val_mean_absolute_error: 2.3800

498 Epoch 210/10000

499 - 0s - loss: 2.9027 - mean_absolute_error: 1.1639 - val_loss: 14.3953 - val_mean_absolute_error: 2.5886

500

501 Epoch 00210: val_mean_absolute_error did not improve from 2.39609

502 Epoch 211/10000

503 - 0s - loss: 2.8137 - mean_absolute_error: 1.1649 - val_loss: 16.7752 - val_mean_absolute_error: 2.4754

504 Epoch 212/10000

505 - 0s - loss: 2.8919 - mean_absolute_error: 1.1783 - val_loss: 14.8504 - val_mean_absolute_error: 2.6328

506 Epoch 213/10000

507 - 0s - loss: 3.0066 - mean_absolute_error: 1.1837 - val_loss: 14.8868 - val_mean_absolute_error: 2.

507 5250

508 Epoch 214/10000

509 - 0s - loss: 2.7766 - mean_absolute_error: 1.1697 - val_loss: 15.0705 - val_mean_absolute_error: 2.6104

510 Epoch 215/10000

511 - 0s - loss: 2.9782 - mean_absolute_error: 1.2100 - val_loss: 18.5210 - val_mean_absolute_error: 2.5921

512 Epoch 216/10000

513 - 0s - loss: 3.0009 - mean_absolute_error: 1.1735 - val_loss: 16.9731 - val_mean_absolute_error: 2.3997

514 Epoch 217/10000

515 - 0s - loss: 3.0105 - mean_absolute_error: 1.1824 - val_loss: 14.4091 - val_mean_absolute_error: 2.3876

516 Epoch 218/10000

517 - 0s - loss: 2.7362 - mean_absolute_error: 1.1455 - val_loss

```
517  : 14.2837 - val_mean_absolute_error: 2.
     3787
518  Epoch 219/10000
519   - 0s - loss: 2.7011 -
     mean_absolute_error: 1.1411 - val_loss
     : 17.6959 - val_mean_absolute_error: 2.
     6283
520  Epoch 220/10000
521   - 0s - loss: 2.7318 -
     mean_absolute_error: 1.1455 - val_loss
     : 14.2764 - val_mean_absolute_error: 2.
     3704
522
523  Epoch 00220: val_mean_absolute_error
     improved from 2.39609 to 2.37044,
     saving model to ./model/model_Epoch0220
     -val_mean_absolute_error2.37.h5
524  Epoch 221/10000
525   - 0s - loss: 2.6138 -
     mean_absolute_error: 1.1449 - val_loss
     : 14.9864 - val_mean_absolute_error: 2.
     3624
526  Epoch 222/10000
527   - 0s - loss: 2.6574 -
```

527 mean_absolute_error: 1.1180 - val_loss: 16.6343 - val_mean_absolute_error: 2.3688

528 Epoch 223/10000

529 - 0s - loss: 2.8195 - mean_absolute_error: 1.1688 - val_loss: 15.1107 - val_mean_absolute_error: 2.3773

530 Epoch 224/10000

531 - 0s - loss: 2.7440 - mean_absolute_error: 1.1254 - val_loss: 15.2954 - val_mean_absolute_error: 2.3837

532 Epoch 225/10000

533 - 0s - loss: 2.7820 - mean_absolute_error: 1.1146 - val_loss: 15.2769 - val_mean_absolute_error: 2.6157

534 Epoch 226/10000

535 - 0s - loss: 2.6032 - mean_absolute_error: 1.1488 - val_loss: 14.2633 - val_mean_absolute_error: 2.3651

536 Epoch 227/10000

537 - 0s - loss: 2.7146 - mean_absolute_error: 1.1339 - val_loss: 17.8000 - val_mean_absolute_error: 2.4554

538 Epoch 228/10000

539 - 0s - loss: 2.7311 - mean_absolute_error: 1.1468 - val_loss: 15.5700 - val_mean_absolute_error: 2.3963

540 Epoch 229/10000

541 - 0s - loss: 2.5778 - mean_absolute_error: 1.1225 - val_loss: 15.2746 - val_mean_absolute_error: 2.3713

542 Epoch 230/10000

543 - 0s - loss: 2.7418 - mean_absolute_error: 1.1692 - val_loss: 15.0234 - val_mean_absolute_error: 2.3743

544

545 Epoch 00230: val_mean_absolute_error did not improve from 2.37044

546 Epoch 231/10000

547 - 0s - loss: 2.6191 -

547 mean_absolute_error: 1.1256 - val_loss: 15.2519 - val_mean_absolute_error: 2.4820

548 Epoch 232/10000

549 - 0s - loss: 2.7957 - mean_absolute_error: 1.1661 - val_loss: 14.9350 - val_mean_absolute_error: 2.3477

550 Epoch 233/10000

551 - 0s - loss: 2.5147 - mean_absolute_error: 1.1031 - val_loss: 15.3569 - val_mean_absolute_error: 2.7102

552 Epoch 234/10000

553 - 0s - loss: 2.6380 - mean_absolute_error: 1.1422 - val_loss: 14.9703 - val_mean_absolute_error: 2.3754

554 Epoch 235/10000

555 - 0s - loss: 2.6223 - mean_absolute_error: 1.1284 - val_loss: 15.6622 - val_mean_absolute_error: 2.3686

556 Epoch 236/10000

557   - 0s - loss: 2.5740 - mean_absolute_error: 1.1127 - val_loss: 14.2099 - val_mean_absolute_error: 2.4605

558 Epoch 237/10000

559   - 0s - loss: 2.5873 - mean_absolute_error: 1.1246 - val_loss: 15.8377 - val_mean_absolute_error: 2.3912

560 Epoch 238/10000

561   - 0s - loss: 2.7348 - mean_absolute_error: 1.1609 - val_loss: 14.4543 - val_mean_absolute_error: 2.3517

562 Epoch 239/10000

563   - 0s - loss: 2.4589 - mean_absolute_error: 1.0827 - val_loss: 14.9896 - val_mean_absolute_error: 2.3719

564 Epoch 240/10000

565   - 0s - loss: 2.4529 - mean_absolute_error: 1.0630 - val_loss: 15.6208 - val_mean_absolute_error: 2.3508

566

567 Epoch 00240: val_mean_absolute_error improved from 2.37044 to 2.35075, saving model to ./model/model_Epoch0240-val_mean_absolute_error2.35.h5

568 Epoch 241/10000

569 - 0s - loss: 2.6008 - mean_absolute_error: 1.1054 - val_loss: 15.1442 - val_mean_absolute_error: 2.5803

570 Epoch 242/10000

571 - 0s - loss: 2.5024 - mean_absolute_error: 1.0556 - val_loss: 16.2679 - val_mean_absolute_error: 2.4531

572 Epoch 243/10000

573 - 0s - loss: 2.5392 - mean_absolute_error: 1.1391 - val_loss: 15.8161 - val_mean_absolute_error: 2.3862

574 Epoch 244/10000

575 - 0s - loss: 2.5439 - mean_absolute_error: 1.1179 - val_loss: 15.7646 - val_mean_absolute_error: 2.

```
575  3813
576  Epoch 245/10000
577   - 0s - loss: 2.5994 -
     mean_absolute_error: 1.1413 - val_loss
     : 15.3937 - val_mean_absolute_error: 2.
     4186
578  Epoch 246/10000
579   - 0s - loss: 2.4311 -
     mean_absolute_error: 1.0650 - val_loss
     : 14.8946 - val_mean_absolute_error: 2.
     4055
580  Epoch 247/10000
581   - 0s - loss: 2.5681 -
     mean_absolute_error: 1.0986 - val_loss
     : 14.8327 - val_mean_absolute_error: 2.
     4875
582  Epoch 248/10000
583   - 0s - loss: 2.4337 -
     mean_absolute_error: 1.0475 - val_loss
     : 15.8474 - val_mean_absolute_error: 2.
     3294
584  Epoch 249/10000
585   - 0s - loss: 2.3942 -
     mean_absolute_error: 1.0954 - val_loss
```

```
585  : 15.0135 - val_mean_absolute_error: 2.
     7257
586  Epoch 250/10000
587   - 0s - loss: 2.4322 -
     mean_absolute_error: 1.1058 - val_loss
     : 14.9843 - val_mean_absolute_error: 2.
     3462
588
589  Epoch 00250: val_mean_absolute_error
     improved from 2.35075 to 2.34617,
     saving model to ./model/model_Epoch0250
     -val_mean_absolute_error2.35.h5
590  Epoch 251/10000
591   - 0s - loss: 2.4432 -
     mean_absolute_error: 1.0795 - val_loss
     : 15.1566 - val_mean_absolute_error: 2.
     3375
592  Epoch 252/10000
593   - 0s - loss: 2.4293 -
     mean_absolute_error: 1.1008 - val_loss
     : 15.0765 - val_mean_absolute_error: 2.
     6591
594  Epoch 253/10000
595   - 0s - loss: 2.6142 -
```

595 mean_absolute_error: 1.1886 - val_loss: 14.4562 - val_mean_absolute_error: 2.5125

596 Epoch 254/10000

597 - 0s - loss: 2.4505 - mean_absolute_error: 1.0981 - val_loss: 15.0649 - val_mean_absolute_error: 2.3752

598 Epoch 255/10000

599 - 0s - loss: 2.5812 - mean_absolute_error: 1.1018 - val_loss: 15.1408 - val_mean_absolute_error: 2.3436

600 Epoch 256/10000

601 - 0s - loss: 2.2909 - mean_absolute_error: 1.0618 - val_loss: 15.7782 - val_mean_absolute_error: 2.4280

602 Epoch 257/10000

603 - 0s - loss: 2.5267 - mean_absolute_error: 1.1237 - val_loss: 15.7746 - val_mean_absolute_error: 2.3268

604 Epoch 258/10000

```
605    - 0s - loss: 2.3111 -
       mean_absolute_error: 1.0357 - val_loss
       : 15.1759 - val_mean_absolute_error: 2.
       5407
606    Epoch 259/10000
607    - 0s - loss: 2.4841 -
       mean_absolute_error: 1.0939 - val_loss
       : 15.6691 - val_mean_absolute_error: 2.
       5940
608    Epoch 260/10000
609    - 0s - loss: 2.5196 -
       mean_absolute_error: 1.0986 - val_loss
       : 14.4459 - val_mean_absolute_error: 2.
       5220

610
611    Epoch 00260: val_mean_absolute_error
       did not improve from 2.34617
612    Epoch 261/10000
613    - 0s - loss: 2.3573 -
       mean_absolute_error: 1.0628 - val_loss
       : 15.0700 - val_mean_absolute_error: 2.
       7376
614    Epoch 262/10000
615    - 0s - loss: 2.3871 -
```

615 mean_absolute_error: 1.1054 - val_loss: 14.6402 - val_mean_absolute_error: 2.3826

616 Epoch 263/10000

617 - 0s - loss: 2.3120 - mean_absolute_error: 1.0613 - val_loss: 15.3542 - val_mean_absolute_error: 2.3853

618 Epoch 264/10000

619 - 0s - loss: 2.2637 - mean_absolute_error: 1.0607 - val_loss: 14.9011 - val_mean_absolute_error: 2.3870

620 Epoch 265/10000

621 - 0s - loss: 2.2324 - mean_absolute_error: 1.0240 - val_loss: 14.7012 - val_mean_absolute_error: 2.3817

622 Epoch 266/10000

623 - 0s - loss: 2.3545 - mean_absolute_error: 1.0780 - val_loss: 14.7826 - val_mean_absolute_error: 2.4492

624 Epoch 267/10000

625 - 0s - loss: 2.4608 - mean_absolute_error: 1.0838 - val_loss: 14.9630 - val_mean_absolute_error: 2.5956

626 Epoch 268/10000

627 - 0s - loss: 2.2883 - mean_absolute_error: 1.0278 - val_loss: 14.7649 - val_mean_absolute_error: 2.5545

628 Epoch 269/10000

629 - 0s - loss: 2.1454 - mean_absolute_error: 1.0071 - val_loss: 14.0932 - val_mean_absolute_error: 2.5414

630 Epoch 270/10000

631 - 0s - loss: 2.4364 - mean_absolute_error: 1.0835 - val_loss: 14.7341 - val_mean_absolute_error: 2.2787

632

633 Epoch 00270: val_mean_absolute_error improved from 2.34617 to 2.27868, saving model to ./model/model_Epoch0270-val_mean_absolute_error2.28.h5

634 Epoch 271/10000
635 - 0s - loss: 2.3224 - mean_absolute_error: 1.0494 - val_loss: 14.4093 - val_mean_absolute_error: 2.3278
636 Epoch 272/10000
637 - 0s - loss: 2.1714 - mean_absolute_error: 1.0398 - val_loss: 14.8482 - val_mean_absolute_error: 2.6968
638 Epoch 273/10000
639 - 0s - loss: 2.4665 - mean_absolute_error: 1.0828 - val_loss: 14.4018 - val_mean_absolute_error: 2.4534
640 Epoch 274/10000
641 - 0s - loss: 2.1426 - mean_absolute_error: 0.9815 - val_loss: 15.1314 - val_mean_absolute_error: 2.5856
642 Epoch 275/10000
643 - 0s - loss: 2.3871 - mean_absolute_error: 1.0624 - val_loss: 15.1847 - val_mean_absolute_error: 2.

643 4384

644 Epoch 276/10000

645   - 0s - loss: 2.2599 - mean_absolute_error: 1.0364 - val_loss: 14.0145 - val_mean_absolute_error: 2.5249

646 Epoch 277/10000

647   - 0s - loss: 2.2694 - mean_absolute_error: 1.0616 - val_loss: 14.8227 - val_mean_absolute_error: 2.2997

648 Epoch 278/10000

649   - 0s - loss: 2.1846 - mean_absolute_error: 1.0295 - val_loss: 14.9187 - val_mean_absolute_error: 2.3189

650 Epoch 279/10000

651   - 0s - loss: 2.2912 - mean_absolute_error: 1.0752 - val_loss: 14.7807 - val_mean_absolute_error: 2.4501

652 Epoch 280/10000

653   - 0s - loss: 2.2902 - mean_absolute_error: 1.0519 - val_loss

653 : 15.8950 - val_mean_absolute_error: 2.3306

654

655 Epoch 00280: val_mean_absolute_error did not improve from 2.27868

656 Epoch 281/10000

657 - 0s - loss: 2.2105 - mean_absolute_error: 1.0388 - val_loss: 17.8994 - val_mean_absolute_error: 2.4921

658 Epoch 282/10000

659 - 0s - loss: 2.0899 - mean_absolute_error: 1.0078 - val_loss: 17.7121 - val_mean_absolute_error: 2.7148

660 Epoch 283/10000

661 - 0s - loss: 2.4057 - mean_absolute_error: 1.0730 - val_loss: 15.2407 - val_mean_absolute_error: 2.6461

662 Epoch 284/10000

663 - 0s - loss: 2.1966 - mean_absolute_error: 1.0299 - val_loss: 15.8173 - val_mean_absolute_error: 2.

663 3053

664 Epoch 285/10000

665 - 0s - loss: 2.2464 - mean_absolute_error: 1.0205 - val_loss: 15.0818 - val_mean_absolute_error: 2.4386

666 Epoch 286/10000

667 - 0s - loss: 2.1356 - mean_absolute_error: 1.0381 - val_loss: 16.1439 - val_mean_absolute_error: 2.4709

668 Epoch 287/10000

669 - 0s - loss: 2.2523 - mean_absolute_error: 1.0469 - val_loss: 17.3776 - val_mean_absolute_error: 2.6685

670 Epoch 288/10000

671 - 0s - loss: 2.3984 - mean_absolute_error: 1.0609 - val_loss: 17.4644 - val_mean_absolute_error: 2.4816

672 Epoch 289/10000

673 - 0s - loss: 2.2076 - mean_absolute_error: 1.0211 - val_loss

```
673  : 14.8777 - val_mean_absolute_error: 2.
     4257
674  Epoch 290/10000
675   - 0s - loss: 2.1017 -
     mean_absolute_error: 1.0165 - val_loss
     : 15.0907 - val_mean_absolute_error: 2.
     3026
676
677  Epoch 00290: val_mean_absolute_error
     did not improve from 2.27868
678  Epoch 291/10000
679   - 0s - loss: 2.1869 -
     mean_absolute_error: 1.0559 - val_loss
     : 14.0647 - val_mean_absolute_error: 2.
     4907
680  Epoch 292/10000
681   - 0s - loss: 2.0737 -
     mean_absolute_error: 0.9896 - val_loss
     : 15.5242 - val_mean_absolute_error: 2.
     2783
682  Epoch 293/10000
683   - 0s - loss: 2.3725 -
     mean_absolute_error: 1.0535 - val_loss
     : 15.0866 - val_mean_absolute_error: 2.
```

683 2942

684 Epoch 294/10000

685 - 0s - loss: 2.0685 - mean_absolute_error: 0.9988 - val_loss: 14.8761 - val_mean_absolute_error: 2.3743

686 Epoch 295/10000

687 - 0s - loss: 2.2338 - mean_absolute_error: 1.0566 - val_loss: 15.0451 - val_mean_absolute_error: 2.7630

688 Epoch 296/10000

689 - 0s - loss: 2.4116 - mean_absolute_error: 1.0665 - val_loss: 15.9036 - val_mean_absolute_error: 2.3368

690 Epoch 297/10000

691 - 0s - loss: 2.0992 - mean_absolute_error: 0.9957 - val_loss: 14.5505 - val_mean_absolute_error: 2.3696

692 Epoch 298/10000

693 - 0s - loss: 2.0936 - mean_absolute_error: 1.0134 - val_loss

```
693  : 15.2790 - val_mean_absolute_error: 2.
     2898
694  Epoch 299/10000
695   - 0s - loss: 2.1483 -
     mean_absolute_error: 1.0230 - val_loss
     : 14.8111 - val_mean_absolute_error: 2.
     4009
696  Epoch 300/10000
697   - 0s - loss: 2.1265 -
     mean_absolute_error: 1.0240 - val_loss
     : 14.7192 - val_mean_absolute_error: 2.
     2983
698
699  Epoch 00300: val_mean_absolute_error
     did not improve from 2.27868
700  Epoch 301/10000
701   - 0s - loss: 2.2190 -
     mean_absolute_error: 1.0188 - val_loss
     : 14.4182 - val_mean_absolute_error: 2.
     3559
702  Epoch 302/10000
703   - 0s - loss: 2.1514 -
     mean_absolute_error: 0.9979 - val_loss
     : 14.3621 - val_mean_absolute_error: 2.
```

```
703  4411
704  Epoch 303/10000
705   - 0s - loss: 2.0215 -
     mean_absolute_error: 1.0100 - val_loss
     : 14.2522 - val_mean_absolute_error: 2.
     4251
706  Epoch 304/10000
707   - 0s - loss: 1.9900 -
     mean_absolute_error: 0.9877 - val_loss
     : 14.7882 - val_mean_absolute_error: 2.
     3899
708  Epoch 305/10000
709   - 0s - loss: 2.0423 -
     mean_absolute_error: 1.0051 - val_loss
     : 14.9730 - val_mean_absolute_error: 2.
     5850
710  Epoch 306/10000
711   - 0s - loss: 2.2166 -
     mean_absolute_error: 1.0324 - val_loss
     : 14.2201 - val_mean_absolute_error: 2.
     4896
712  Epoch 307/10000
713   - 0s - loss: 2.0770 -
     mean_absolute_error: 0.9913 - val_loss
```

```
713  : 14.1805 - val_mean_absolute_error: 2.
     3132
714  Epoch 308/10000
715   - 0s - loss: 1.9095 -
     mean_absolute_error: 0.9435 - val_loss
     : 15.3983 - val_mean_absolute_error: 2.
     5432
716  Epoch 309/10000
717   - 0s - loss: 2.1437 -
     mean_absolute_error: 1.0149 - val_loss
     : 15.0632 - val_mean_absolute_error: 2.
     3842
718  Epoch 310/10000
719   - 0s - loss: 2.0585 -
     mean_absolute_error: 0.9797 - val_loss
     : 17.7830 - val_mean_absolute_error: 2.
     5849
720
721  Epoch 00310: val_mean_absolute_error
     did not improve from 2.27868
722  Epoch 311/10000
723   - 0s - loss: 2.1620 -
     mean_absolute_error: 1.0164 - val_loss
     : 18.3972 - val_mean_absolute_error: 2.
```

723 5894

724 Epoch 312/10000

725 - 0s - loss: 1.9822 - mean_absolute_error: 1.0062 - val_loss: 14.3500 - val_mean_absolute_error: 2.4273

726 Epoch 313/10000

727 - 0s - loss: 1.9594 - mean_absolute_error: 0.9621 - val_loss: 14.4013 - val_mean_absolute_error: 2.3844

728 Epoch 314/10000

729 - 0s - loss: 2.0182 - mean_absolute_error: 0.9850 - val_loss: 15.0993 - val_mean_absolute_error: 2.3840

730 Epoch 315/10000

731 - 0s - loss: 1.9406 - mean_absolute_error: 0.9659 - val_loss: 14.7852 - val_mean_absolute_error: 2.3325

732 Epoch 316/10000

733 - 0s - loss: 2.0906 - mean_absolute_error: 1.0039 - val_loss

```
733  : 15.2359 - val_mean_absolute_error: 2.
     3019
734  Epoch 317/10000
735   - 0s - loss: 1.9706 -
     mean_absolute_error: 1.0049 - val_loss
     : 17.0828 - val_mean_absolute_error: 2.
     6797
736  Epoch 318/10000
737   - 0s - loss: 2.0393 -
     mean_absolute_error: 0.9737 - val_loss
     : 15.0948 - val_mean_absolute_error: 2.
     6181
738  Epoch 319/10000
739   - 0s - loss: 1.9211 -
     mean_absolute_error: 0.9437 - val_loss
     : 15.2936 - val_mean_absolute_error: 2.
     3663
740  Epoch 320/10000
741   - 0s - loss: 2.0960 -
     mean_absolute_error: 1.0314 - val_loss
     : 14.3546 - val_mean_absolute_error: 2.
     2714
742
743  Epoch 00320: val_mean_absolute_error
```

743 improved from 2.27868 to 2.27144, saving model to ./model/model_Epoch0320-val_mean_absolute_error2.27.h5

744 Epoch 321/10000

745 - 0s - loss: 1.9044 - mean_absolute_error: 0.9583 - val_loss: 16.3305 - val_mean_absolute_error: 2.4341

746 Epoch 322/10000

747 - 0s - loss: 2.1304 - mean_absolute_error: 1.0233 - val_loss: 14.6590 - val_mean_absolute_error: 2.5445

748 Epoch 323/10000

749 - 0s - loss: 1.9075 - mean_absolute_error: 0.9564 - val_loss: 15.1806 - val_mean_absolute_error: 2.2832

750 Epoch 324/10000

751 - 0s - loss: 2.0301 - mean_absolute_error: 0.9918 - val_loss: 13.9229 - val_mean_absolute_error: 2.5236

752 Epoch 325/10000

753 - 0s - loss: 1.9731 - mean_absolute_error: 0.9991 - val_loss: 14.6705 - val_mean_absolute_error: 2.3190

754 Epoch 326/10000

755 - 0s - loss: 1.9225 - mean_absolute_error: 0.9350 - val_loss: 14.5299 - val_mean_absolute_error: 2.4179

756 Epoch 327/10000

757 - 0s - loss: 1.9881 - mean_absolute_error: 0.9949 - val_loss: 14.5081 - val_mean_absolute_error: 2.2974

758 Epoch 328/10000

759 - 0s - loss: 1.7965 - mean_absolute_error: 0.9291 - val_loss: 13.3162 - val_mean_absolute_error: 2.3665

760 Epoch 329/10000

761 - 0s - loss: 1.9571 - mean_absolute_error: 0.9876 - val_loss: 14.3532 - val_mean_absolute_error: 2.4270

```
762  Epoch 330/10000
763   - 0s - loss: 1.8319 -
     mean_absolute_error: 0.9335 - val_loss
     : 21.1054 - val_mean_absolute_error: 2.
     9773
764
765  Epoch 00330: val_mean_absolute_error
     did not improve from 2.27144
766  Epoch 331/10000
767   - 0s - loss: 2.1491 -
     mean_absolute_error: 1.0649 - val_loss
     : 14.2655 - val_mean_absolute_error: 2.
     4132
768  Epoch 332/10000
769   - 0s - loss: 1.8056 -
     mean_absolute_error: 0.9295 - val_loss
     : 15.8299 - val_mean_absolute_error: 2.
     3233
770  Epoch 333/10000
771   - 0s - loss: 1.8669 -
     mean_absolute_error: 0.9938 - val_loss
     : 14.6616 - val_mean_absolute_error: 2.
     3220
772  Epoch 334/10000
```

```
773   - 0s - loss: 1.9868 -
mean_absolute_error: 1.0057 - val_loss
: 15.2658 - val_mean_absolute_error: 2.
4762
774 Epoch 335/10000
775   - 0s - loss: 2.0014 -
mean_absolute_error: 0.9835 - val_loss
: 14.0339 - val_mean_absolute_error: 2.
5222
776 Epoch 336/10000
777   - 0s - loss: 1.8816 -
mean_absolute_error: 0.9597 - val_loss
: 14.8914 - val_mean_absolute_error: 2.
2979
778 Epoch 337/10000
779   - 0s - loss: 1.8513 -
mean_absolute_error: 0.9512 - val_loss
: 13.9345 - val_mean_absolute_error: 2.
5279
780 Epoch 338/10000
781   - 0s - loss: 1.8177 -
mean_absolute_error: 0.9484 - val_loss
: 14.7740 - val_mean_absolute_error: 2.
3942
```

782 Epoch 339/10000
783 - 0s - loss: 1.8739 - mean_absolute_error: 0.9610 - val_loss: 14.3029 - val_mean_absolute_error: 2.4728
784 Epoch 340/10000
785 - 0s - loss: 1.9201 - mean_absolute_error: 0.9598 - val_loss: 15.3677 - val_mean_absolute_error: 2.3744

786
787 Epoch 00340: val_mean_absolute_error did not improve from 2.27144
788 Epoch 341/10000
789 - 0s - loss: 1.8761 - mean_absolute_error: 0.9605 - val_loss: 14.2186 - val_mean_absolute_error: 2.3111
790 Epoch 342/10000
791 - 0s - loss: 1.9512 - mean_absolute_error: 0.9631 - val_loss: 16.1321 - val_mean_absolute_error: 2.3997
792 Epoch 343/10000

793 - 0s - loss: 1.7205 - mean_absolute_error: 0.9050 - val_loss: 14.8216 - val_mean_absolute_error: 2.5433

794 Epoch 344/10000

795 - 0s - loss: 1.8581 - mean_absolute_error: 0.9509 - val_loss: 14.5676 - val_mean_absolute_error: 2.3571

796 Epoch 345/10000

797 - 0s - loss: 1.8681 - mean_absolute_error: 0.9185 - val_loss: 14.2676 - val_mean_absolute_error: 2.2742

798 Epoch 346/10000

799 - 0s - loss: 1.8569 - mean_absolute_error: 0.9499 - val_loss: 16.2703 - val_mean_absolute_error: 2.5774

800 Epoch 347/10000

801 - 0s - loss: 1.8741 - mean_absolute_error: 0.9380 - val_loss: 16.2112 - val_mean_absolute_error: 2.7778

802 Epoch 348/10000

803 - 0s - loss: 1.9640 - mean_absolute_error: 0.9974 - val_loss: 15.2091 - val_mean_absolute_error: 2.3715

804 Epoch 349/10000

805 - 0s - loss: 1.8097 - mean_absolute_error: 0.9622 - val_loss: 15.1000 - val_mean_absolute_error: 2.3443

806 Epoch 350/10000

807 - 0s - loss: 1.8214 - mean_absolute_error: 0.9237 - val_loss: 14.6352 - val_mean_absolute_error: 2.5597

808

809 Epoch 00350: val_mean_absolute_error did not improve from 2.27144

810 Epoch 351/10000

811 - 0s - loss: 1.8211 - mean_absolute_error: 0.9425 - val_loss: 17.4370 - val_mean_absolute_error: 2.7119

812 Epoch 352/10000

```
813    - 0s - loss: 1.7342 -
mean_absolute_error: 0.9101 - val_loss
: 15.1515 - val_mean_absolute_error: 2.
3621
814 Epoch 353/10000
815    - 0s - loss: 1.9371 -
mean_absolute_error: 0.9670 - val_loss
: 15.0829 - val_mean_absolute_error: 2.
5077
816 Epoch 354/10000
817    - 0s - loss: 1.7942 -
mean_absolute_error: 0.9390 - val_loss
: 14.3486 - val_mean_absolute_error: 2.
3495
818 Epoch 355/10000
819    - 0s - loss: 1.8253 -
mean_absolute_error: 0.9500 - val_loss
: 14.6962 - val_mean_absolute_error: 2.
3001
820 Epoch 356/10000
821    - 0s - loss: 1.8569 -
mean_absolute_error: 0.9433 - val_loss
: 14.6840 - val_mean_absolute_error: 2.
5033
```

822 Epoch 357/10000

823 - 0s - loss: 1.7482 - mean_absolute_error: 0.9157 - val_loss: 14.6225 - val_mean_absolute_error: 2.3770

824 Epoch 358/10000

825 - 0s - loss: 1.7876 - mean_absolute_error: 0.9358 - val_loss: 14.8173 - val_mean_absolute_error: 2.5308

826 Epoch 359/10000

827 - 0s - loss: 1.7943 - mean_absolute_error: 0.9279 - val_loss: 14.0924 - val_mean_absolute_error: 2.6262

828 Epoch 360/10000

829 - 0s - loss: 1.7785 - mean_absolute_error: 0.9279 - val_loss: 14.4884 - val_mean_absolute_error: 2.5050

830

831 Epoch 00360: val_mean_absolute_error did not improve from 2.27144

832 Epoch 361/10000

```
833    - 0s - loss: 1.7353 -
mean_absolute_error: 0.9015 - val_loss
: 18.0756 - val_mean_absolute_error: 2.
5895
834 Epoch 362/10000
835    - 0s - loss: 1.7430 -
mean_absolute_error: 0.9032 - val_loss
: 14.3251 - val_mean_absolute_error: 2.
5982
836 Epoch 363/10000
837    - 0s - loss: 1.6605 -
mean_absolute_error: 0.9196 - val_loss
: 17.7063 - val_mean_absolute_error: 2.
6277
838 Epoch 364/10000
839    - 0s - loss: 1.7740 -
mean_absolute_error: 0.9331 - val_loss
: 13.8154 - val_mean_absolute_error: 2.
2661
840 Epoch 365/10000
841    - 0s - loss: 1.8541 -
mean_absolute_error: 0.9747 - val_loss
: 14.5495 - val_mean_absolute_error: 2.
3410
```

842 Epoch 366/10000
843 - 0s - loss: 1.9007 - mean_absolute_error: 0.9676 - val_loss: 13.7906 - val_mean_absolute_error: 2.5707
844 Epoch 367/10000
845 - 0s - loss: 1.8400 - mean_absolute_error: 0.9361 - val_loss: 14.6852 - val_mean_absolute_error: 2.4288
846 Epoch 368/10000
847 - 0s - loss: 1.6277 - mean_absolute_error: 0.8758 - val_loss: 16.4776 - val_mean_absolute_error: 2.7040
848 Epoch 369/10000
849 - 0s - loss: 1.7803 - mean_absolute_error: 0.9472 - val_loss: 14.2399 - val_mean_absolute_error: 2.4672
850 Epoch 370/10000
851 - 0s - loss: 1.7184 - mean_absolute_error: 0.9242 - val_loss: 17.0157 - val_mean_absolute_error: 2.

```
851  4219
852
853  Epoch 00370: val_mean_absolute_error
     did not improve from 2.27144
854  Epoch 371/10000
855   - 0s - loss: 1.7668 -
     mean_absolute_error: 0.9466 - val_loss
     : 15.7616 - val_mean_absolute_error: 2.
     3674
856  Epoch 372/10000
857   - 0s - loss: 1.6920 -
     mean_absolute_error: 0.9014 - val_loss
     : 15.3433 - val_mean_absolute_error: 2.
     2932
858  Epoch 373/10000
859   - 0s - loss: 1.7816 -
     mean_absolute_error: 0.9394 - val_loss
     : 16.3074 - val_mean_absolute_error: 2.
     7174
860  Epoch 374/10000
861   - 0s - loss: 1.5983 -
     mean_absolute_error: 0.8789 - val_loss
     : 15.7665 - val_mean_absolute_error: 2.
     5116
```

862 Epoch 375/10000
863 - 0s - loss: 1.8667 - mean_absolute_error: 0.9425 - val_loss: 14.5178 - val_mean_absolute_error: 2.4010
864 Epoch 376/10000
865 - 0s - loss: 1.6729 - mean_absolute_error: 0.8907 - val_loss: 14.0100 - val_mean_absolute_error: 2.5083
866 Epoch 377/10000
867 - 0s - loss: 1.6877 - mean_absolute_error: 0.8787 - val_loss: 13.8046 - val_mean_absolute_error: 2.3509
868 Epoch 378/10000
869 - 0s - loss: 1.6936 - mean_absolute_error: 0.9043 - val_loss: 15.7462 - val_mean_absolute_error: 2.4028
870 Epoch 379/10000
871 - 0s - loss: 1.6934 - mean_absolute_error: 0.8995 - val_loss: 14.7212 - val_mean_absolute_error: 2.

871 3616

872 Epoch 380/10000

873 - 0s - loss: 1.6327 - mean_absolute_error: 0.8894 - val_loss: 15.0645 - val_mean_absolute_error: 2.2954

874

875 Epoch 00380: val_mean_absolute_error did not improve from 2.27144

876 Epoch 381/10000

877 - 0s - loss: 1.6144 - mean_absolute_error: 0.9267 - val_loss: 16.6079 - val_mean_absolute_error: 2.3784

878 Epoch 382/10000

879 - 0s - loss: 1.6437 - mean_absolute_error: 0.9075 - val_loss: 17.4873 - val_mean_absolute_error: 2.6080

880 Epoch 383/10000

881 - 0s - loss: 1.7721 - mean_absolute_error: 0.9155 - val_loss: 14.6514 - val_mean_absolute_error: 2.2917

882 Epoch 384/10000
883 - 0s - loss: 1.7072 - mean_absolute_error: 0.9138 - val_loss: 15.1970 - val_mean_absolute_error: 2.3712
884 Epoch 385/10000
885 - 0s - loss: 1.7882 - mean_absolute_error: 0.9210 - val_loss: 14.4781 - val_mean_absolute_error: 2.4483
886 Epoch 386/10000
887 - 0s - loss: 1.6628 - mean_absolute_error: 0.8959 - val_loss: 15.1962 - val_mean_absolute_error: 2.3238
888 Epoch 387/10000
889 - 0s - loss: 1.7971 - mean_absolute_error: 0.9481 - val_loss: 15.2200 - val_mean_absolute_error: 2.4284
890 Epoch 388/10000
891 - 0s - loss: 1.6807 - mean_absolute_error: 0.9031 - val_loss: 15.8099 - val_mean_absolute_error: 2.

```
891  4255
892  Epoch 389/10000
893   - 0s - loss: 1.6054 -
     mean_absolute_error: 0.8889 - val_loss
     : 14.4099 - val_mean_absolute_error: 2.
     4109
894  Epoch 390/10000
895   - 0s - loss: 1.5804 -
     mean_absolute_error: 0.8707 - val_loss
     : 14.6813 - val_mean_absolute_error: 2.
     3511
896
897  Epoch 00390: val_mean_absolute_error
     did not improve from 2.27144
898  Epoch 391/10000
899   - 0s - loss: 1.5320 -
     mean_absolute_error: 0.8630 - val_loss
     : 14.8922 - val_mean_absolute_error: 2.
     5381
900  Epoch 392/10000
901   - 0s - loss: 1.7256 -
     mean_absolute_error: 0.9332 - val_loss
     : 14.9890 - val_mean_absolute_error: 2.
     2921
```

902 Epoch 393/10000
903 - 0s - loss: 1.5913 - mean_absolute_error: 0.8825 - val_loss: 13.7557 - val_mean_absolute_error: 2.4474
904 Epoch 394/10000
905 - 0s - loss: 1.5973 - mean_absolute_error: 0.8757 - val_loss: 17.4712 - val_mean_absolute_error: 2.8735
906 Epoch 395/10000
907 - 0s - loss: 1.8653 - mean_absolute_error: 0.9697 - val_loss: 14.7767 - val_mean_absolute_error: 2.4940
908 Epoch 396/10000
909 - 0s - loss: 1.6422 - mean_absolute_error: 0.8958 - val_loss: 14.6101 - val_mean_absolute_error: 2.3777
910 Epoch 397/10000
911 - 0s - loss: 1.5268 - mean_absolute_error: 0.8867 - val_loss: 14.0779 - val_mean_absolute_error: 2.

911 5638
912 Epoch 398/10000
913 - 0s - loss: 1.5572 - mean_absolute_error: 0.8839 - val_loss: 15.1277 - val_mean_absolute_error: 2.6321
914 Epoch 399/10000
915 - 0s - loss: 1.4570 - mean_absolute_error: 0.8564 - val_loss: 14.8208 - val_mean_absolute_error: 2.3968
916 Epoch 400/10000
917 - 0s - loss: 1.6204 - mean_absolute_error: 0.8787 - val_loss: 14.1910 - val_mean_absolute_error: 2.3837
918
919 Epoch 00400: val_mean_absolute_error did not improve from 2.27144
920 Epoch 401/10000
921 - 0s - loss: 1.5270 - mean_absolute_error: 0.8488 - val_loss: 15.8006 - val_mean_absolute_error: 2.3809

922 Epoch 402/10000
923 - 0s - loss: 1.5842 - mean_absolute_error: 0.8853 - val_loss: 14.8969 - val_mean_absolute_error: 2.4643
924 Epoch 403/10000
925 - 0s - loss: 1.5664 - mean_absolute_error: 0.8760 - val_loss: 16.1669 - val_mean_absolute_error: 2.6921
926 Epoch 404/10000
927 - 0s - loss: 1.6772 - mean_absolute_error: 0.8792 - val_loss: 15.4799 - val_mean_absolute_error: 2.6875
928 Epoch 405/10000
929 - 0s - loss: 1.6364 - mean_absolute_error: 0.9033 - val_loss: 14.4138 - val_mean_absolute_error: 2.5625
930 Epoch 406/10000
931 - 0s - loss: 1.6387 - mean_absolute_error: 0.9102 - val_loss: 14.7752 - val_mean_absolute_error: 2.

931 4425

932 Epoch 407/10000

933 - 0s - loss: 1.5653 - mean_absolute_error: 0.8960 - val_loss: 14.9045 - val_mean_absolute_error: 2.3585

934 Epoch 408/10000

935 - 0s - loss: 1.4068 - mean_absolute_error: 0.8381 - val_loss: 14.4369 - val_mean_absolute_error: 2.6098

936 Epoch 409/10000

937 - 0s - loss: 1.6119 - mean_absolute_error: 0.9260 - val_loss: 14.0295 - val_mean_absolute_error: 2.5917

938 Epoch 410/10000

939 - 0s - loss: 1.5634 - mean_absolute_error: 0.8716 - val_loss: 15.4314 - val_mean_absolute_error: 2.4701

940

941 Epoch 00410: val_mean_absolute_error did not improve from 2.27144

942 Epoch 411/10000
943 - 0s - loss: 1.5502 - mean_absolute_error: 0.8504 - val_loss: 16.2650 - val_mean_absolute_error: 2.4877
944 Epoch 412/10000
945 - 0s - loss: 1.5782 - mean_absolute_error: 0.9070 - val_loss: 17.2417 - val_mean_absolute_error: 2.5166
946 Epoch 413/10000
947 - 0s - loss: 1.5055 - mean_absolute_error: 0.8558 - val_loss: 17.6926 - val_mean_absolute_error: 2.6917
948 Epoch 414/10000
949 - 0s - loss: 1.5368 - mean_absolute_error: 0.8530 - val_loss: 16.0439 - val_mean_absolute_error: 2.6625
950 Epoch 415/10000
951 - 0s - loss: 1.5748 - mean_absolute_error: 0.8894 - val_loss: 14.7222 - val_mean_absolute_error: 2.

951 3720

952 Epoch 416/10000

953 - 0s - loss: 1.5700 - mean_absolute_error: 0.8637 - val_loss: 17.1348 - val_mean_absolute_error: 2.4844

954 Epoch 417/10000

955 - 0s - loss: 1.4599 - mean_absolute_error: 0.8223 - val_loss: 16.1108 - val_mean_absolute_error: 2.4365

956 Epoch 418/10000

957 - 0s - loss: 1.5189 - mean_absolute_error: 0.8623 - val_loss: 15.2316 - val_mean_absolute_error: 2.8354

958 Epoch 419/10000

959 - 0s - loss: 1.6611 - mean_absolute_error: 0.8517 - val_loss: 14.8896 - val_mean_absolute_error: 2.4017

960 Epoch 420/10000

961 - 0s - loss: 1.5410 - mean_absolute_error: 0.8776 - val_loss

961 : 17.1800 - val_mean_absolute_error: 2.5526

962

963 Epoch 00420: val_mean_absolute_error did not improve from 2.27144

964 Epoch 421/10000

965 - 0s - loss: 1.6255 - mean_absolute_error: 0.9147 - val_loss: 15.2094 - val_mean_absolute_error: 2.3383

966 Epoch 422/10000

967 - 0s - loss: 1.4973 - mean_absolute_error: 0.8177 - val_loss: 17.6861 - val_mean_absolute_error: 2.5329

968 Epoch 423/10000

969 - 0s - loss: 1.4637 - mean_absolute_error: 0.8620 - val_loss: 14.6424 - val_mean_absolute_error: 2.3580

970 Epoch 424/10000

971 - 0s - loss: 1.4664 - mean_absolute_error: 0.8610 - val_loss: 15.1302 - val_mean_absolute_error: 2.

```
971 3577
972 Epoch 425/10000
973  - 0s - loss: 1.4672 -
mean_absolute_error: 0.8452 - val_loss
: 15.6767 - val_mean_absolute_error: 2.
4242
974 Epoch 426/10000
975  - 0s - loss: 1.4158 -
mean_absolute_error: 0.8412 - val_loss
: 17.2967 - val_mean_absolute_error: 2.
6878
976 Epoch 427/10000
977  - 0s - loss: 1.5372 -
mean_absolute_error: 0.8658 - val_loss
: 16.6655 - val_mean_absolute_error: 2.
5690
978 Epoch 428/10000
979  - 0s - loss: 1.4457 -
mean_absolute_error: 0.8762 - val_loss
: 15.9439 - val_mean_absolute_error: 2.
6024
980 Epoch 429/10000
981  - 0s - loss: 1.5492 -
mean_absolute_error: 0.8565 - val_loss
```

981 : 19.1364 - val_mean_absolute_error: 2
.7487

982 Epoch 430/10000

983 - 0s - loss: 1.6797 -
mean_absolute_error: 0.8732 - val_loss
: 15.3308 - val_mean_absolute_error: 2
.3330

984

985 Epoch 00430: val_mean_absolute_error
did not improve from 2.27144

986 Epoch 431/10000

987 - 0s - loss: 1.3127 -
mean_absolute_error: 0.7755 - val_loss
: 15.0591 - val_mean_absolute_error: 2
.3440

988 Epoch 432/10000

989 - 0s - loss: 1.3813 -
mean_absolute_error: 0.8247 - val_loss
: 15.8284 - val_mean_absolute_error: 2
.4720

990 Epoch 433/10000

991 - 0s - loss: 1.6340 -
mean_absolute_error: 0.8772 - val_loss
: 15.0309 - val_mean_absolute_error: 2

991 .5306
992 Epoch 434/10000
993 - 0s - loss: 1.4351 - mean_absolute_error: 0.8290 - val_loss: 15.8105 - val_mean_absolute_error: 2.5570
994 Epoch 435/10000
995 - 0s - loss: 1.4595 - mean_absolute_error: 0.8464 - val_loss: 20.0449 - val_mean_absolute_error: 2.7847
996 Epoch 436/10000
997 - 0s - loss: 1.3921 - mean_absolute_error: 0.8270 - val_loss: 15.1965 - val_mean_absolute_error: 2.3940
998 Epoch 437/10000
999 - 0s - loss: 1.4550 - mean_absolute_error: 0.8569 - val_loss: 18.6720 - val_mean_absolute_error: 2.8522
1000 Epoch 438/10000
1001 - 0s - loss: 1.6239 - mean_absolute_error: 0.9091 - val_loss

```
1001  : 15.2577 - val_mean_absolute_error: 2
      .3719
1002  Epoch 439/10000
1003   - 0s - loss: 1.3111 -
      mean_absolute_error: 0.7871 - val_loss
      : 17.4640 - val_mean_absolute_error: 2
      .6287
1004  Epoch 440/10000
1005   - 0s - loss: 1.3243 -
      mean_absolute_error: 0.8325 - val_loss
      : 16.0116 - val_mean_absolute_error: 2
      .4028
1006
1007  Epoch 00440: val_mean_absolute_error
      did not improve from 2.27144
1008  Epoch 441/10000
1009   - 0s - loss: 1.3685 -
      mean_absolute_error: 0.8233 - val_loss
      : 14.3668 - val_mean_absolute_error: 2
      .4710
1010  Epoch 442/10000
1011   - 0s - loss: 1.3892 -
      mean_absolute_error: 0.8235 - val_loss
      : 14.5064 - val_mean_absolute_error: 2
```

```
1011  .4099
1012  Epoch 443/10000
1013   - 0s - loss: 1.4166 -
      mean_absolute_error: 0.8215 - val_loss
      : 14.9252 - val_mean_absolute_error: 2
      .3662
1014  Epoch 444/10000
1015   - 0s - loss: 1.4678 -
      mean_absolute_error: 0.8663 - val_loss
      : 15.3650 - val_mean_absolute_error: 2
      .4840
1016  Epoch 445/10000
1017   - 0s - loss: 1.4300 -
      mean_absolute_error: 0.8283 - val_loss
      : 15.6853 - val_mean_absolute_error: 2
      .4239
1018  Epoch 446/10000
1019   - 0s - loss: 1.4497 -
      mean_absolute_error: 0.8367 - val_loss
      : 15.7063 - val_mean_absolute_error: 2
      .6232
1020  Epoch 447/10000
1021   - 0s - loss: 1.4990 -
      mean_absolute_error: 0.8996 - val_loss
```

```
1021  : 15.5788 - val_mean_absolute_error: 2
      .8463
1022  Epoch 448/10000
1023   - 0s - loss: 1.4814 -
      mean_absolute_error: 0.8399 - val_loss
      : 14.4456 - val_mean_absolute_error: 2
      .5660
1024  Epoch 449/10000
1025   - 0s - loss: 1.3259 -
      mean_absolute_error: 0.7959 - val_loss
      : 14.4201 - val_mean_absolute_error: 2
      .4000
1026  Epoch 450/10000
1027   - 0s - loss: 1.5449 -
      mean_absolute_error: 0.8517 - val_loss
      : 14.9426 - val_mean_absolute_error: 2
      .4181
1028
1029  Epoch 00450: val_mean_absolute_error
      did not improve from 2.27144
1030  Epoch 451/10000
1031   - 0s - loss: 1.4022 -
      mean_absolute_error: 0.8531 - val_loss
      : 15.1806 - val_mean_absolute_error: 2
```

1031 .3518

1032 Epoch 452/10000

1033 - 0s - loss: 1.2848 - mean_absolute_error: 0.7993 - val_loss: 15.2663 - val_mean_absolute_error: 2.4277

1034 Epoch 453/10000

1035 - 0s - loss: 1.4697 - mean_absolute_error: 0.8232 - val_loss: 19.0383 - val_mean_absolute_error: 2.6928

1036 Epoch 454/10000

1037 - 0s - loss: 1.3968 - mean_absolute_error: 0.8349 - val_loss: 14.5463 - val_mean_absolute_error: 2.3851

1038 Epoch 455/10000

1039 - 0s - loss: 1.2743 - mean_absolute_error: 0.8091 - val_loss: 18.8853 - val_mean_absolute_error: 2.8567

1040 Epoch 456/10000

1041 - 0s - loss: 1.5086 - mean_absolute_error: 0.8377 - val_loss

1041 `: 15.3994 - val_mean_absolute_error: 2`
`.4230`

1042 `Epoch 457/10000`

1043 ` - 0s - loss: 1.3167 -`
`mean_absolute_error: 0.8010 - val_loss`
`: 19.9696 - val_mean_absolute_error: 2`
`.8065`

1044 `Epoch 458/10000`

1045 ` - 0s - loss: 1.4493 -`
`mean_absolute_error: 0.8035 - val_loss`
`: 15.7117 - val_mean_absolute_error: 2`
`.4015`

1046 `Epoch 459/10000`

1047 ` - 0s - loss: 1.3997 -`
`mean_absolute_error: 0.8265 - val_loss`
`: 17.3444 - val_mean_absolute_error: 2`
`.5906`

1048 `Epoch 460/10000`

1049 ` - 0s - loss: 1.3032 -`
`mean_absolute_error: 0.7794 - val_loss`
`: 14.6490 - val_mean_absolute_error: 2`
`.5962`

1050

1051 `Epoch 00460: val_mean_absolute_error`

1051 did not improve from 2.27144

1052 Epoch 461/10000

1053 - 0s - loss: 1.5055 - mean_absolute_error: 0.8578 - val_loss: 14.5696 - val_mean_absolute_error: 2.5859

1054 Epoch 462/10000

1055 - 0s - loss: 1.2862 - mean_absolute_error: 0.8125 - val_loss: 15.3035 - val_mean_absolute_error: 2.6363

1056 Epoch 463/10000

1057 - 0s - loss: 1.5026 - mean_absolute_error: 0.8694 - val_loss: 15.3907 - val_mean_absolute_error: 2.4956

1058 Epoch 464/10000

1059 - 0s - loss: 1.3117 - mean_absolute_error: 0.8053 - val_loss: 15.5293 - val_mean_absolute_error: 2.3891

1060

1061 Epoch 00464: ReduceLROnPlateau reducing learning rate to 0.

```
1061 00010000000475.
1062 Epoch 465/10000
1063  - 0s - loss: 0.9995 -
mean_absolute_error: 0.6585 - val_loss
: 14.9356 - val_mean_absolute_error: 2
.3494
1064 Epoch 466/10000
1065  - 0s - loss: 0.9302 -
mean_absolute_error: 0.6279 - val_loss
: 14.8179 - val_mean_absolute_error: 2
.3764
1066 Epoch 467/10000
1067  - 0s - loss: 0.9316 -
mean_absolute_error: 0.6216 - val_loss
: 14.9468 - val_mean_absolute_error: 2
.3592
1068 Epoch 468/10000
1069  - 0s - loss: 0.9230 -
mean_absolute_error: 0.6186 - val_loss
: 14.9497 - val_mean_absolute_error: 2
.3666
1070 Epoch 469/10000
1071  - 0s - loss: 0.9257 -
mean_absolute_error: 0.6179 - val_loss
```

```
1071  : 15.0719 - val_mean_absolute_error: 2
      .3643
1072  Epoch 470/10000
1073   - 0s - loss: 0.9371 -
      mean_absolute_error: 0.6247 - val_loss
      : 15.1085 - val_mean_absolute_error: 2
      .3553
1074
1075  Epoch 00470: val_mean_absolute_error
      did not improve from 2.27144
1076  Epoch 471/10000
1077   - 0s - loss: 0.9137 -
      mean_absolute_error: 0.6128 - val_loss
      : 15.0209 - val_mean_absolute_error: 2
      .3596
1078  Epoch 472/10000
1079   - 0s - loss: 0.9287 -
      mean_absolute_error: 0.6111 - val_loss
      : 14.8410 - val_mean_absolute_error: 2
      .3839
1080  Epoch 473/10000
1081   - 0s - loss: 0.9242 -
      mean_absolute_error: 0.6200 - val_loss
      : 15.0388 - val_mean_absolute_error: 2
```

1081 .3554

1082 Epoch 474/10000

1083 - 0s - loss: 0.9101 - mean_absolute_error: 0.6134 - val_loss: 15.0800 - val_mean_absolute_error: 2.3599

1084 Epoch 475/10000

1085 - 0s - loss: 0.9104 - mean_absolute_error: 0.6112 - val_loss: 15.1703 - val_mean_absolute_error: 2.3542

1086 Epoch 476/10000

1087 - 0s - loss: 0.9149 - mean_absolute_error: 0.6125 - val_loss: 15.2366 - val_mean_absolute_error: 2.3556

1088 Epoch 477/10000

1089 - 0s - loss: 0.9023 - mean_absolute_error: 0.6123 - val_loss: 14.9713 - val_mean_absolute_error: 2.3725

1090 Epoch 478/10000

1091 - 0s - loss: 0.9100 - mean_absolute_error: 0.6095 - val_loss

```
1091  : 14.9899 - val_mean_absolute_error: 2
      .3666
1092  Epoch 479/10000
1093   - 0s - loss: 0.9088 -
      mean_absolute_error: 0.6072 - val_loss
      : 14.9858 - val_mean_absolute_error: 2
      .3651
1094  Epoch 480/10000
1095   - 0s - loss: 0.9120 -
      mean_absolute_error: 0.6149 - val_loss
      : 15.0885 - val_mean_absolute_error: 2
      .3565
1096
1097  Epoch 00480: val_mean_absolute_error
      did not improve from 2.27144
1098  Epoch 481/10000
1099   - 0s - loss: 0.9084 -
      mean_absolute_error: 0.6101 - val_loss
      : 14.9983 - val_mean_absolute_error: 2
      .3661
1100  Epoch 482/10000
1101   - 0s - loss: 0.9184 -
      mean_absolute_error: 0.6139 - val_loss
      : 15.1026 - val_mean_absolute_error: 2
```

```
1101  .3604
1102  Epoch 483/10000
1103   - 0s - loss: 0.8940 -
      mean_absolute_error: 0.6059 - val_loss
      : 14.9657 - val_mean_absolute_error: 2
      .3715
1104  Epoch 484/10000
1105   - 0s - loss: 0.8996 -
      mean_absolute_error: 0.6080 - val_loss
      : 15.0119 - val_mean_absolute_error: 2
      .3642
1106  Epoch 485/10000
1107   - 0s - loss: 0.9041 -
      mean_absolute_error: 0.6071 - val_loss
      : 14.8839 - val_mean_absolute_error: 2
      .3692
1108  Epoch 486/10000
1109   - 0s - loss: 0.9011 -
      mean_absolute_error: 0.6081 - val_loss
      : 15.0509 - val_mean_absolute_error: 2
      .3609
1110  Epoch 487/10000
1111   - 0s - loss: 0.9027 -
      mean_absolute_error: 0.5994 - val_loss
```

```
1111  : 15.1396 - val_mean_absolute_error: 2
      .3677
1112  Epoch 488/10000
1113   - 0s - loss: 0.9111 -
      mean_absolute_error: 0.6144 - val_loss
      : 15.0355 - val_mean_absolute_error: 2
      .3690
1114  Epoch 489/10000
1115   - 0s - loss: 0.9056 -
      mean_absolute_error: 0.6028 - val_loss
      : 14.9065 - val_mean_absolute_error: 2
      .3771
1116  Epoch 490/10000
1117   - 0s - loss: 0.8910 -
      mean_absolute_error: 0.6103 - val_loss
      : 15.0505 - val_mean_absolute_error: 2
      .3802
1118
1119  Epoch 00490: val_mean_absolute_error
      did not improve from 2.27144
1120  Epoch 491/10000
1121   - 0s - loss: 0.9030 -
      mean_absolute_error: 0.6158 - val_loss
      : 15.0727 - val_mean_absolute_error: 2
```

1121 .3675
1122 Epoch 492/10000
1123 - 0s - loss: 0.8961 - mean_absolute_error: 0.5986 - val_loss: 14.9453 - val_mean_absolute_error: 2.3913
1124 Epoch 493/10000
1125 - 0s - loss: 0.8968 - mean_absolute_error: 0.6141 - val_loss: 14.9783 - val_mean_absolute_error: 2.3766
1126 Epoch 494/10000
1127 - 0s - loss: 0.8845 - mean_absolute_error: 0.5948 - val_loss: 14.8873 - val_mean_absolute_error: 2.3902
1128 Epoch 495/10000
1129 - 0s - loss: 0.8986 - mean_absolute_error: 0.6060 - val_loss: 14.9193 - val_mean_absolute_error: 2.3761
1130 Epoch 496/10000
1131 - 0s - loss: 0.8879 - mean_absolute_error: 0.6034 - val_loss

```
1131  : 15.0311 - val_mean_absolute_error: 2
      .3631
1132  Epoch 497/10000
1133   - 0s - loss: 0.8962 -
      mean_absolute_error: 0.6069 - val_loss
      : 15.0212 - val_mean_absolute_error: 2
      .3804
1134  Epoch 498/10000
1135   - 0s - loss: 0.8914 -
      mean_absolute_error: 0.5960 - val_loss
      : 14.9894 - val_mean_absolute_error: 2
      .3955
1136  Epoch 499/10000
1137   - 0s - loss: 0.8934 -
      mean_absolute_error: 0.6047 - val_loss
      : 15.0414 - val_mean_absolute_error: 2
      .3715
1138  Epoch 500/10000
1139   - 0s - loss: 0.8879 -
      mean_absolute_error: 0.6017 - val_loss
      : 15.1524 - val_mean_absolute_error: 2
      .3776
1140
1141  Epoch 00500: val_mean_absolute_error
```

1141 did not improve from 2.27144
1142 Epoch 501/10000
1143 - 0s - loss: 0.8767 - mean_absolute_error: 0.6066 - val_loss: 14.8147 - val_mean_absolute_error: 2.4199
1144 Epoch 502/10000
1145 - 0s - loss: 0.8965 - mean_absolute_error: 0.6084 - val_loss: 15.1460 - val_mean_absolute_error: 2.3663
1146 Epoch 503/10000
1147 - 0s - loss: 0.8986 - mean_absolute_error: 0.5982 - val_loss: 15.0421 - val_mean_absolute_error: 2.3695
1148 Epoch 504/10000
1149 - 0s - loss: 0.8765 - mean_absolute_error: 0.5963 - val_loss: 15.0407 - val_mean_absolute_error: 2.4032
1150 Epoch 505/10000
1151 - 0s - loss: 0.9058 - mean_absolute_error: 0.6063 - val_loss

```
1151  : 15.0376 - val_mean_absolute_error: 2
      .3747
1152  Epoch 506/10000
1153   - 0s - loss: 0.8889 -
      mean_absolute_error: 0.6030 - val_loss
      : 15.1558 - val_mean_absolute_error: 2
      .3645
1154  Epoch 507/10000
1155   - 0s - loss: 0.8889 -
      mean_absolute_error: 0.6010 - val_loss
      : 15.1722 - val_mean_absolute_error: 2
      .3692
1156  Epoch 508/10000
1157   - 0s - loss: 0.8881 -
      mean_absolute_error: 0.5966 - val_loss
      : 15.2174 - val_mean_absolute_error: 2
      .3591
1158  Epoch 509/10000
1159   - 0s - loss: 0.8814 -
      mean_absolute_error: 0.6021 - val_loss
      : 15.2282 - val_mean_absolute_error: 2
      .3651
1160  Epoch 510/10000
1161   - 0s - loss: 0.8826 -
```

```
1161  mean_absolute_error: 0.6010 - val_loss
      : 15.1598 - val_mean_absolute_error: 2
      .3744
1162
1163  Epoch 00510: val_mean_absolute_error
      did not improve from 2.27144
1164  Epoch 511/10000
1165   - 0s - loss: 0.8874 -
      mean_absolute_error: 0.5993 - val_loss
      : 15.2843 - val_mean_absolute_error: 2
      .3705
1166  Epoch 512/10000
1167   - 0s - loss: 0.8920 -
      mean_absolute_error: 0.6051 - val_loss
      : 15.0546 - val_mean_absolute_error: 2
      .3767
1168  Epoch 513/10000
1169   - 0s - loss: 0.8866 -
      mean_absolute_error: 0.5982 - val_loss
      : 15.1409 - val_mean_absolute_error: 2
      .3746
1170  Epoch 514/10000
1171   - 0s - loss: 0.8947 -
      mean_absolute_error: 0.6033 - val_loss
```

1171 : 15.0443 - val_mean_absolute_error: 2.3768

1172 Epoch 515/10000

1173 - 0s - loss: 0.8810 - mean_absolute_error: 0.5952 - val_loss: 15.0930 - val_mean_absolute_error: 2.3619

1174 Epoch 516/10000

1175 - 0s - loss: 0.8863 - mean_absolute_error: 0.5974 - val_loss: 14.9081 - val_mean_absolute_error: 2.3775

1176 Epoch 517/10000

1177 - 0s - loss: 0.8826 - mean_absolute_error: 0.5976 - val_loss: 15.0792 - val_mean_absolute_error: 2.3706

1178 Epoch 518/10000

1179 - 0s - loss: 0.8911 - mean_absolute_error: 0.5976 - val_loss: 14.9489 - val_mean_absolute_error: 2.3860

1180 Epoch 519/10000

1181 - 0s - loss: 0.8760 -

```
1181  mean_absolute_error: 0.5969 - val_loss
      : 15.1474 - val_mean_absolute_error: 2
      .3624
1182  Epoch 520/10000
1183   - 0s - loss: 0.8844 -
      mean_absolute_error: 0.5966 - val_loss
      : 15.0964 - val_mean_absolute_error: 2
      .3744
1184
1185  Epoch 00520: val_mean_absolute_error
      did not improve from 2.27144
1186  Epoch 521/10000
1187   - 0s - loss: 0.8826 -
      mean_absolute_error: 0.6025 - val_loss
      : 15.0641 - val_mean_absolute_error: 2
      .3782
1188  Epoch 522/10000
1189   - 0s - loss: 0.8774 -
      mean_absolute_error: 0.5995 - val_loss
      : 15.1288 - val_mean_absolute_error: 2
      .3798
1190  Epoch 523/10000
1191   - 0s - loss: 0.8777 -
      mean_absolute_error: 0.5925 - val_loss
```

1191 : 15.3386 - val_mean_absolute_error: 2
.3623

1192 Epoch 524/10000

1193 - 0s - loss: 0.8718 -
mean_absolute_error: 0.5893 - val_loss
: 14.9228 - val_mean_absolute_error: 2
.3978

1194 Epoch 525/10000

1195 - 0s - loss: 0.8787 -
mean_absolute_error: 0.6028 - val_loss
: 15.1345 - val_mean_absolute_error: 2
.3641

1196 Epoch 526/10000

1197 - 0s - loss: 0.8735 -
mean_absolute_error: 0.5972 - val_loss
: 14.9964 - val_mean_absolute_error: 2
.3928

1198 Epoch 527/10000

1199 - 0s - loss: 0.8784 -
mean_absolute_error: 0.5961 - val_loss
: 15.0609 - val_mean_absolute_error: 2
.3748

1200 Epoch 528/10000

1201 - 0s - loss: 0.8744 -

```
1201  mean_absolute_error: 0.5965 - val_loss
      : 15.1377 - val_mean_absolute_error: 2
      .3627
1202  Epoch 529/10000
1203   - 0s - loss: 0.8787 -
      mean_absolute_error: 0.5972 - val_loss
      : 15.0672 - val_mean_absolute_error: 2
      .3747
1204  Epoch 530/10000
1205   - 0s - loss: 0.8705 -
      mean_absolute_error: 0.5912 - val_loss
      : 15.1361 - val_mean_absolute_error: 2
      .3804
1206
1207  Epoch 00530: val_mean_absolute_error
      did not improve from 2.27144
1208  Epoch 531/10000
1209   - 0s - loss: 0.8738 -
      mean_absolute_error: 0.5976 - val_loss
      : 14.8746 - val_mean_absolute_error: 2
      .4105
1210  Epoch 532/10000
1211   - 0s - loss: 0.8858 -
      mean_absolute_error: 0.5963 - val_loss
```

1211 : 15.0491 - val_mean_absolute_error: 2
.3896

1212 Epoch 533/10000

1213 - 0s - loss: 0.8678 -
mean_absolute_error: 0.5974 - val_loss
: 15.0500 - val_mean_absolute_error: 2
.3738

1214 Epoch 534/10000

1215 - 0s - loss: 0.8729 -
mean_absolute_error: 0.5937 - val_loss
: 15.0269 - val_mean_absolute_error: 2
.3685

1216 Epoch 535/10000

1217 - 0s - loss: 0.8696 -
mean_absolute_error: 0.5989 - val_loss
: 14.9482 - val_mean_absolute_error: 2
.3916

1218 Epoch 536/10000

1219 - 0s - loss: 0.8747 -
mean_absolute_error: 0.5998 - val_loss
: 15.1677 - val_mean_absolute_error: 2
.3883

1220 Epoch 537/10000

1221 - 0s - loss: 0.8842 -

1221 mean_absolute_error: 0.5950 - val_loss: 15.0914 - val_mean_absolute_error: 2.3930

1222 Epoch 538/10000

1223 - 0s - loss: 0.8763 - mean_absolute_error: 0.5931 - val_loss: 15.1257 - val_mean_absolute_error: 2.3968

1224 Epoch 539/10000

1225 - 0s - loss: 0.8642 - mean_absolute_error: 0.5931 - val_loss: 15.2813 - val_mean_absolute_error: 2.3718

1226 Epoch 540/10000

1227 - 0s - loss: 0.8598 - mean_absolute_error: 0.5906 - val_loss: 15.2021 - val_mean_absolute_error: 2.3751

1228

1229 Epoch 00540: val_mean_absolute_error did not improve from 2.27144

1230 Epoch 541/10000

1231 - 0s - loss: 0.8697 - mean_absolute_error: 0.5920 - val_loss

1231 : 14.9682 - val_mean_absolute_error: 2
.3956

1232 Epoch 542/10000

1233 - 0s - loss: 0.8735 -
mean_absolute_error: 0.5935 - val_loss
: 14.9677 - val_mean_absolute_error: 2
.4167

1234 Epoch 543/10000

1235 - 0s - loss: 0.8747 -
mean_absolute_error: 0.6059 - val_loss
: 15.0620 - val_mean_absolute_error: 2
.3815

1236 Epoch 544/10000

1237 - 0s - loss: 0.8612 -
mean_absolute_error: 0.5911 - val_loss
: 14.9845 - val_mean_absolute_error: 2
.3956

1238 Epoch 545/10000

1239 - 0s - loss: 0.8730 -
mean_absolute_error: 0.5942 - val_loss
: 15.2307 - val_mean_absolute_error: 2
.3671

1240 Epoch 546/10000

1241 - 0s - loss: 0.8697 -

```
1241  mean_absolute_error: 0.5927 - val_loss
      : 15.1324 - val_mean_absolute_error: 2
      .3756
1242  Epoch 547/10000
1243   - 0s - loss: 0.8660 -
      mean_absolute_error: 0.5915 - val_loss
      : 15.0551 - val_mean_absolute_error: 2
      .3940
1244  Epoch 548/10000
1245   - 0s - loss: 0.8808 -
      mean_absolute_error: 0.5938 - val_loss
      : 15.2151 - val_mean_absolute_error: 2
      .3677
1246  Epoch 549/10000
1247   - 0s - loss: 0.8656 -
      mean_absolute_error: 0.5916 - val_loss
      : 15.0795 - val_mean_absolute_error: 2
      .3824
1248  Epoch 550/10000
1249   - 0s - loss: 0.8712 -
      mean_absolute_error: 0.5945 - val_loss
      : 15.1247 - val_mean_absolute_error: 2
      .3735
1250
```

```
1251  Epoch 00550: val_mean_absolute_error
      did not improve from 2.27144
1252  Epoch 551/10000
1253   - 0s - loss: 0.8600 -
      mean_absolute_error: 0.5929 - val_loss
      : 15.1558 - val_mean_absolute_error: 2
      .3743
1254  Epoch 552/10000
1255   - 0s - loss: 0.8537 -
      mean_absolute_error: 0.5832 - val_loss
      : 15.2080 - val_mean_absolute_error: 2
      .3726
1256  Epoch 553/10000
1257   - 0s - loss: 0.8705 -
      mean_absolute_error: 0.5913 - val_loss
      : 15.1761 - val_mean_absolute_error: 2
      .3696
1258  Epoch 554/10000
1259   - 0s - loss: 0.8496 -
      mean_absolute_error: 0.5895 - val_loss
      : 15.2631 - val_mean_absolute_error: 2
      .3729
1260  Epoch 555/10000
1261   - 0s - loss: 0.8658 -
```

1261 mean_absolute_error: 0.5852 - val_loss: 15.1642 - val_mean_absolute_error: 2.3730

1262 Epoch 556/10000

1263 - 0s - loss: 0.8660 - mean_absolute_error: 0.5988 - val_loss: 15.3134 - val_mean_absolute_error: 2.3705

1264 Epoch 557/10000

1265 - 0s - loss: 0.8578 - mean_absolute_error: 0.5849 - val_loss: 15.0200 - val_mean_absolute_error: 2.3900

1266 Epoch 558/10000

1267 - 0s - loss: 0.8661 - mean_absolute_error: 0.5904 - val_loss: 15.0645 - val_mean_absolute_error: 2.3910

1268 Epoch 559/10000

1269 - 0s - loss: 0.8536 - mean_absolute_error: 0.5918 - val_loss: 15.4101 - val_mean_absolute_error: 2.3826

1270 Epoch 560/10000

```
1271   - 0s - loss: 0.8645 -
       mean_absolute_error: 0.5891 - val_loss
       : 15.2656 - val_mean_absolute_error: 2
       .3815
1272
1273   Epoch 00560: val_mean_absolute_error
       did not improve from 2.27144
1274   Epoch 561/10000
1275   - 0s - loss: 0.8648 -
       mean_absolute_error: 0.5906 - val_loss
       : 15.2862 - val_mean_absolute_error: 2
       .3761
1276   Epoch 562/10000
1277   - 0s - loss: 0.8603 -
       mean_absolute_error: 0.5895 - val_loss
       : 15.2338 - val_mean_absolute_error: 2
       .3849
1278   Epoch 563/10000
1279   - 0s - loss: 0.8569 -
       mean_absolute_error: 0.5827 - val_loss
       : 15.1688 - val_mean_absolute_error: 2
       .3859
1280   Epoch 564/10000
1281   - 0s - loss: 0.8591 -
```

1281 mean_absolute_error: 0.5861 - val_loss: 15.2701 - val_mean_absolute_error: 2.3772

1282

1283 Epoch 00564: ReduceLROnPlateau reducing learning rate to 1.0000000475e-05.

1284 Epoch 565/10000

1285 - 0s - loss: 0.8296 - mean_absolute_error: 0.5753 - val_loss: 15.2353 - val_mean_absolute_error: 2.3779

1286 Epoch 566/10000

1287 - 0s - loss: 0.8264 - mean_absolute_error: 0.5726 - val_loss: 15.1958 - val_mean_absolute_error: 2.3817

1288 Epoch 567/10000

1289 - 0s - loss: 0.8225 - mean_absolute_error: 0.5696 - val_loss: 15.1795 - val_mean_absolute_error: 2.3828

1290 Epoch 568/10000

1291 - 0s - loss: 0.8220 -

1291 mean_absolute_error: 0.5689 - val_loss: 15.1649 - val_mean_absolute_error: 2.3841

1292 Epoch 569/10000

1293 - 0s - loss: 0.8221 - mean_absolute_error: 0.5695 - val_loss: 15.1578 - val_mean_absolute_error: 2.3844

1294 Epoch 570/10000

1295 - 0s - loss: 0.8225 - mean_absolute_error: 0.5697 - val_loss: 15.1645 - val_mean_absolute_error: 2.3829

1296

1297 Epoch 00570: val_mean_absolute_error did not improve from 2.27144

1298 Epoch 571/10000

1299 - 0s - loss: 0.8209 - mean_absolute_error: 0.5684 - val_loss: 15.1708 - val_mean_absolute_error: 2.3818

1300 Epoch 572/10000

1301 - 0s - loss: 0.8206 - mean_absolute_error: 0.5687 - val_loss

```
1301  : 15.1569 - val_mean_absolute_error: 2
      .3832
1302  Epoch 573/10000
1303   - 0s - loss: 0.8225 -
      mean_absolute_error: 0.5696 - val_loss
      : 15.1555 - val_mean_absolute_error: 2
      .3829
1304  Epoch 574/10000
1305   - 0s - loss: 0.8210 -
      mean_absolute_error: 0.5681 - val_loss
      : 15.1601 - val_mean_absolute_error: 2
      .3821
1306  Epoch 575/10000
1307   - 0s - loss: 0.8209 -
      mean_absolute_error: 0.5684 - val_loss
      : 15.1487 - val_mean_absolute_error: 2
      .3841
1308  Epoch 576/10000
1309   - 0s - loss: 0.8211 -
      mean_absolute_error: 0.5691 - val_loss
      : 15.1636 - val_mean_absolute_error: 2
      .3823
1310  Epoch 577/10000
1311   - 0s - loss: 0.8210 -
```

1311 mean_absolute_error: 0.5688 - val_loss : 15.1560 - val_mean_absolute_error: 2 .3830

1312 Epoch 578/10000

1313 - 0s - loss: 0.8209 - mean_absolute_error: 0.5691 - val_loss : 15.1606 - val_mean_absolute_error: 2 .3823

1314 Epoch 579/10000

1315 - 0s - loss: 0.8209 - mean_absolute_error: 0.5674 - val_loss : 15.1711 - val_mean_absolute_error: 2 .3806

1316 Epoch 580/10000

1317 - 0s - loss: 0.8201 - mean_absolute_error: 0.5683 - val_loss : 15.1660 - val_mean_absolute_error: 2 .3815

1318

1319 Epoch 00580: val_mean_absolute_error did not improve from 2.27144

1320 Epoch 581/10000

1321 - 0s - loss: 0.8203 - mean_absolute_error: 0.5673 - val_loss

1321 : 15.1800 - val_mean_absolute_error: 2
.3801

1322 Epoch 582/10000

1323 - 0s - loss: 0.8213 -
mean_absolute_error: 0.5678 - val_loss
: 15.1577 - val_mean_absolute_error: 2
.3822

1324 Epoch 583/10000

1325 - 0s - loss: 0.8201 -
mean_absolute_error: 0.5679 - val_loss
: 15.1635 - val_mean_absolute_error: 2
.3808

1326 Epoch 584/10000

1327 - 0s - loss: 0.8201 -
mean_absolute_error: 0.5674 - val_loss
: 15.1622 - val_mean_absolute_error: 2
.3819

1328 Epoch 585/10000

1329 - 0s - loss: 0.8209 -
mean_absolute_error: 0.5677 - val_loss
: 15.1612 - val_mean_absolute_error: 2
.3814

1330 Epoch 586/10000

1331 - 0s - loss: 0.8202 -

1331 mean_absolute_error: 0.5677 - val_loss: 15.1430 - val_mean_absolute_error: 2.3830

1332 Epoch 587/10000

1333 - 0s - loss: 0.8200 - mean_absolute_error: 0.5681 - val_loss: 15.1538 - val_mean_absolute_error: 2.3812

1334 Epoch 588/10000

1335 - 0s - loss: 0.8207 - mean_absolute_error: 0.5688 - val_loss: 15.1544 - val_mean_absolute_error: 2.3806

1336 Epoch 589/10000

1337 - 0s - loss: 0.8199 - mean_absolute_error: 0.5684 - val_loss: 15.1477 - val_mean_absolute_error: 2.3820

1338 Epoch 590/10000

1339 - 0s - loss: 0.8202 - mean_absolute_error: 0.5674 - val_loss: 15.1485 - val_mean_absolute_error: 2.3816

1340

1341 Epoch 00590: val_mean_absolute_error did not improve from 2.27144
1342 Epoch 591/10000
1343 - 0s - loss: 0.8205 - mean_absolute_error: 0.5678 - val_loss: 15.1366 - val_mean_absolute_error: 2.3829
1344 Epoch 592/10000
1345 - 0s - loss: 0.8186 - mean_absolute_error: 0.5678 - val_loss: 15.1644 - val_mean_absolute_error: 2.3799
1346 Epoch 593/10000
1347 - 0s - loss: 0.8191 - mean_absolute_error: 0.5677 - val_loss: 15.1625 - val_mean_absolute_error: 2.3799
1348 Epoch 594/10000
1349 - 0s - loss: 0.8201 - mean_absolute_error: 0.5675 - val_loss: 15.1624 - val_mean_absolute_error: 2.3794
1350 Epoch 595/10000
1351 - 0s - loss: 0.8201 -

```
1351  mean_absolute_error: 0.5676 - val_loss
      : 15.1599 - val_mean_absolute_error: 2
      .3795
1352  Epoch 596/10000
1353   - 0s - loss: 0.8198 -
      mean_absolute_error: 0.5680 - val_loss
      : 15.1657 - val_mean_absolute_error: 2
      .3793
1354  Epoch 597/10000
1355   - 0s - loss: 0.8189 -
      mean_absolute_error: 0.5671 - val_loss
      : 15.1625 - val_mean_absolute_error: 2
      .3793
1356  Epoch 598/10000
1357   - 0s - loss: 0.8198 -
      mean_absolute_error: 0.5671 - val_loss
      : 15.1532 - val_mean_absolute_error: 2
      .3799
1358  Epoch 599/10000
1359   - 0s - loss: 0.8203 -
      mean_absolute_error: 0.5678 - val_loss
      : 15.1549 - val_mean_absolute_error: 2
      .3801
1360  Epoch 600/10000
```

1361   - 0s - loss: 0.8200 - mean_absolute_error: 0.5671 - val_loss: 15.1523 - val_mean_absolute_error: 2.3803

1362

1363 Epoch 00600: val_mean_absolute_error did not improve from 2.27144

1364 Epoch 601/10000

1365   - 0s - loss: 0.8196 - mean_absolute_error: 0.5678 - val_loss: 15.1619 - val_mean_absolute_error: 2.3793

1366 Epoch 602/10000

1367   - 0s - loss: 0.8180 - mean_absolute_error: 0.5667 - val_loss: 15.1667 - val_mean_absolute_error: 2.3789

1368 Epoch 603/10000

1369   - 0s - loss: 0.8190 - mean_absolute_error: 0.5674 - val_loss: 15.1652 - val_mean_absolute_error: 2.3790

1370 Epoch 604/10000

1371   - 0s - loss: 0.8193 -

```
1371  mean_absolute_error: 0.5673 - val_loss
      : 15.1590 - val_mean_absolute_error: 2
      .3795
1372  Epoch 605/10000
1373   - 0s - loss: 0.8183 -
      mean_absolute_error: 0.5676 - val_loss
      : 15.1599 - val_mean_absolute_error: 2
      .3796
1374  Epoch 606/10000
1375   - 0s - loss: 0.8206 -
      mean_absolute_error: 0.5675 - val_loss
      : 15.1566 - val_mean_absolute_error: 2
      .3797
1376  Epoch 607/10000
1377   - 0s - loss: 0.8189 -
      mean_absolute_error: 0.5674 - val_loss
      : 15.1685 - val_mean_absolute_error: 2
      .3785
1378  Epoch 608/10000
1379   - 0s - loss: 0.8186 -
      mean_absolute_error: 0.5666 - val_loss
      : 15.1628 - val_mean_absolute_error: 2
      .3795
1380  Epoch 609/10000
```

```
1381   - 0s - loss: 0.8185 -
       mean_absolute_error: 0.5672 - val_loss
       : 15.1599 - val_mean_absolute_error: 2
       .3793
1382   Epoch 610/10000
1383   - 0s - loss: 0.8184 -
       mean_absolute_error: 0.5671 - val_loss
       : 15.1635 - val_mean_absolute_error: 2
       .3788
1384
1385   Epoch 00610: val_mean_absolute_error
       did not improve from 2.27144
1386   Epoch 611/10000
1387   - 0s - loss: 0.8194 -
       mean_absolute_error: 0.5671 - val_loss
       : 15.1608 - val_mean_absolute_error: 2
       .3792
1388   Epoch 612/10000
1389   - 0s - loss: 0.8198 -
       mean_absolute_error: 0.5673 - val_loss
       : 15.1544 - val_mean_absolute_error: 2
       .3801
1390   Epoch 613/10000
1391   - 0s - loss: 0.8188 -
```

```
1391  mean_absolute_error: 0.5668 - val_loss
      : 15.1524 - val_mean_absolute_error: 2
      .3803
1392  Epoch 614/10000
1393   - 0s - loss: 0.8189 -
      mean_absolute_error: 0.5674 - val_loss
      : 15.1696 - val_mean_absolute_error: 2
      .3782
1394  Epoch 615/10000
1395   - 0s - loss: 0.8181 -
      mean_absolute_error: 0.5662 - val_loss
      : 15.1668 - val_mean_absolute_error: 2
      .3787
1396  Epoch 616/10000
1397   - 0s - loss: 0.8188 -
      mean_absolute_error: 0.5662 - val_loss
      : 15.1542 - val_mean_absolute_error: 2
      .3803
1398  Epoch 617/10000
1399   - 0s - loss: 0.8179 -
      mean_absolute_error: 0.5666 - val_loss
      : 15.1551 - val_mean_absolute_error: 2
      .3794
1400  Epoch 618/10000
```

```
1401    - 0s - loss: 0.8186 -
        mean_absolute_error: 0.5671 - val_loss
        : 15.1593 - val_mean_absolute_error: 2
        .3802
1402  Epoch 619/10000
1403    - 0s - loss: 0.8179 -
        mean_absolute_error: 0.5670 - val_loss
        : 15.1364 - val_mean_absolute_error: 2
        .3831
1404  Epoch 620/10000
1405    - 0s - loss: 0.8193 -
        mean_absolute_error: 0.5676 - val_loss
        : 15.1342 - val_mean_absolute_error: 2
        .3826
1406
1407  Epoch 00620: val_mean_absolute_error
        did not improve from 2.27144
1408  Epoch 621/10000
1409    - 0s - loss: 0.8178 -
        mean_absolute_error: 0.5676 - val_loss
        : 15.1452 - val_mean_absolute_error: 2
        .3815
1410  Epoch 622/10000
1411    - 0s - loss: 0.8177 -
```

1411 mean_absolute_error: 0.5670 - val_loss: 15.1536 - val_mean_absolute_error: 2.3812

1412 Epoch 623/10000

1413 - 0s - loss: 0.8185 - mean_absolute_error: 0.5665 - val_loss: 15.1540 - val_mean_absolute_error: 2.3819

1414 Epoch 624/10000

1415 - 0s - loss: 0.8176 - mean_absolute_error: 0.5661 - val_loss: 15.1609 - val_mean_absolute_error: 2.3804

1416 Epoch 625/10000

1417 - 0s - loss: 0.8180 - mean_absolute_error: 0.5661 - val_loss: 15.1601 - val_mean_absolute_error: 2.3796

1418 Epoch 626/10000

1419 - 0s - loss: 0.8185 - mean_absolute_error: 0.5660 - val_loss: 15.1572 - val_mean_absolute_error: 2.3803

1420 Epoch 627/10000

1421   - 0s - loss: 0.8180 - mean_absolute_error: 0.5657 - val_loss: 15.1715 - val_mean_absolute_error: 2.3790

1422 Epoch 628/10000

1423   - 0s - loss: 0.8174 - mean_absolute_error: 0.5660 - val_loss: 15.1691 - val_mean_absolute_error: 2.3796

1424 Epoch 629/10000

1425   - 0s - loss: 0.8179 - mean_absolute_error: 0.5660 - val_loss: 15.1629 - val_mean_absolute_error: 2.3800

1426 Epoch 630/10000

1427   - 0s - loss: 0.8187 - mean_absolute_error: 0.5665 - val_loss: 15.1666 - val_mean_absolute_error: 2.3795

1428

1429 Epoch 00630: val_mean_absolute_error did not improve from 2.27144

1430 Epoch 631/10000

1431   - 0s - loss: 0.8184 -

1431 mean_absolute_error: 0.5661 - val_loss: 15.1631 - val_mean_absolute_error: 2.3789

1432 Epoch 632/10000

1433   - 0s - loss: 0.8177 - mean_absolute_error: 0.5659 - val_loss: 15.1693 - val_mean_absolute_error: 2.3782

1434 Epoch 633/10000

1435   - 0s - loss: 0.8186 - mean_absolute_error: 0.5660 - val_loss: 15.1653 - val_mean_absolute_error: 2.3782

1436 Epoch 634/10000

1437   - 0s - loss: 0.8174 - mean_absolute_error: 0.5652 - val_loss: 15.1711 - val_mean_absolute_error: 2.3777

1438 Epoch 635/10000

1439   - 0s - loss: 0.8178 - mean_absolute_error: 0.5657 - val_loss: 15.1723 - val_mean_absolute_error: 2.3776

1440 Epoch 636/10000

```
1441   - 0s - loss: 0.8168 -
mean_absolute_error: 0.5663 - val_loss
: 15.1850 - val_mean_absolute_error: 2
.3767
1442 Epoch 637/10000
1443   - 0s - loss: 0.8170 -
mean_absolute_error: 0.5656 - val_loss
: 15.1703 - val_mean_absolute_error: 2
.3793
1444 Epoch 638/10000
1445   - 0s - loss: 0.8164 -
mean_absolute_error: 0.5652 - val_loss
: 15.1778 - val_mean_absolute_error: 2
.3785
1446 Epoch 639/10000
1447   - 0s - loss: 0.8172 -
mean_absolute_error: 0.5658 - val_loss
: 15.1630 - val_mean_absolute_error: 2
.3801
1448 Epoch 640/10000
1449   - 0s - loss: 0.8171 -
mean_absolute_error: 0.5667 - val_loss
: 15.1631 - val_mean_absolute_error: 2
.3806
```

1450

1451 Epoch 00640: val_mean_absolute_error did not improve from 2.27144

1452 Epoch 641/10000

1453 - 0s - loss: 0.8187 - mean_absolute_error: 0.5665 - val_loss: 15.1610 - val_mean_absolute_error: 2.3799

1454 Epoch 642/10000

1455 - 0s - loss: 0.8167 - mean_absolute_error: 0.5660 - val_loss: 15.1575 - val_mean_absolute_error: 2.3798

1456 Epoch 643/10000

1457 - 0s - loss: 0.8171 - mean_absolute_error: 0.5672 - val_loss: 15.1633 - val_mean_absolute_error: 2.3797

1458 Epoch 644/10000

1459 - 0s - loss: 0.8175 - mean_absolute_error: 0.5661 - val_loss: 15.1593 - val_mean_absolute_error: 2.3798

1460 Epoch 645/10000

1461   - 0s - loss: 0.8164 - mean_absolute_error: 0.5659 - val_loss: 15.1530 - val_mean_absolute_error: 2.3812

1462   Epoch 646/10000

1463   - 0s - loss: 0.8166 - mean_absolute_error: 0.5663 - val_loss: 15.1580 - val_mean_absolute_error: 2.3818

1464   Epoch 647/10000

1465   - 0s - loss: 0.8166 - mean_absolute_error: 0.5660 - val_loss: 15.1634 - val_mean_absolute_error: 2.3813

1466   Epoch 648/10000

1467   - 0s - loss: 0.8174 - mean_absolute_error: 0.5660 - val_loss: 15.1516 - val_mean_absolute_error: 2.3820

1468   Epoch 649/10000

1469   - 0s - loss: 0.8167 - mean_absolute_error: 0.5662 - val_loss: 15.1477 - val_mean_absolute_error: 2.3827

```
1470  Epoch 650/10000
1471   - 0s - loss: 0.8161 -
      mean_absolute_error: 0.5656 - val_loss
      : 15.1456 - val_mean_absolute_error: 2
      .3825
1472
1473  Epoch 00650: val_mean_absolute_error
      did not improve from 2.27144
1474  Epoch 651/10000
1475   - 0s - loss: 0.8174 -
      mean_absolute_error: 0.5661 - val_loss
      : 15.1390 - val_mean_absolute_error: 2
      .3830
1476  Epoch 652/10000
1477   - 0s - loss: 0.8160 -
      mean_absolute_error: 0.5663 - val_loss
      : 15.1414 - val_mean_absolute_error: 2
      .3822
1478  Epoch 653/10000
1479   - 0s - loss: 0.8170 -
      mean_absolute_error: 0.5670 - val_loss
      : 15.1452 - val_mean_absolute_error: 2
      .3816
1480  Epoch 654/10000
```

1481 - 0s - loss: 0.8170 - mean_absolute_error: 0.5660 - val_loss: 15.1511 - val_mean_absolute_error: 2.3807

1482 Epoch 655/10000

1483 - 0s - loss: 0.8166 - mean_absolute_error: 0.5663 - val_loss: 15.1692 - val_mean_absolute_error: 2.3796

1484 Epoch 656/10000

1485 - 0s - loss: 0.8167 - mean_absolute_error: 0.5658 - val_loss: 15.1622 - val_mean_absolute_error: 2.3801

1486 Epoch 657/10000

1487 - 0s - loss: 0.8157 - mean_absolute_error: 0.5657 - val_loss: 15.1565 - val_mean_absolute_error: 2.3808

1488 Epoch 658/10000

1489 - 0s - loss: 0.8163 - mean_absolute_error: 0.5659 - val_loss: 15.1594 - val_mean_absolute_error: 2.3804

```
1490 Epoch 659/10000
1491  - 0s - loss: 0.8161 -
mean_absolute_error: 0.5657 - val_loss
: 15.1566 - val_mean_absolute_error: 2
.3810
1492 Epoch 660/10000
1493  - 0s - loss: 0.8163 -
mean_absolute_error: 0.5663 - val_loss
: 15.1561 - val_mean_absolute_error: 2
.3814

1494
1495 Epoch 00660: val_mean_absolute_error
did not improve from 2.27144
1496 Epoch 661/10000
1497  - 0s - loss: 0.8162 -
mean_absolute_error: 0.5658 - val_loss
: 15.1380 - val_mean_absolute_error: 2
.3837
1498 Epoch 662/10000
1499  - 0s - loss: 0.8159 -
mean_absolute_error: 0.5668 - val_loss
: 15.1657 - val_mean_absolute_error: 2
.3808
1500 Epoch 663/10000
```

```
1501    - 0s - loss: 0.8150 -
mean_absolute_error: 0.5650 - val_loss
: 15.1667 - val_mean_absolute_error: 2
.3804
1502 Epoch 664/10000
1503    - 0s - loss: 0.8173 -
mean_absolute_error: 0.5658 - val_loss
: 15.1606 - val_mean_absolute_error: 2
.3816

1504

1505 Epoch 00664: ReduceLROnPlateau
reducing learning rate to 1.
00000006569e-06.
1506 Epoch 665/10000
1507    - 0s - loss: 0.8124 -
mean_absolute_error: 0.5640 - val_loss
: 15.1612 - val_mean_absolute_error: 2
.3816
1508 Epoch 666/10000
1509    - 0s - loss: 0.8124 -
mean_absolute_error: 0.5640 - val_loss
: 15.1614 - val_mean_absolute_error: 2
.3815
1510 Epoch 667/10000
```

1511 - 0s - loss: 0.8124 - mean_absolute_error: 0.5640 - val_loss: 15.1621 - val_mean_absolute_error: 2.3814

1512 Epoch 668/10000

1513 - 0s - loss: 0.8123 - mean_absolute_error: 0.5639 - val_loss: 15.1626 - val_mean_absolute_error: 2.3813

1514 Epoch 669/10000

1515 - 0s - loss: 0.8124 - mean_absolute_error: 0.5639 - val_loss: 15.1628 - val_mean_absolute_error: 2.3813

1516 Epoch 670/10000

1517 - 0s - loss: 0.8123 - mean_absolute_error: 0.5639 - val_loss: 15.1640 - val_mean_absolute_error: 2.3811

1518

1519 Epoch 00670: val_mean_absolute_error did not improve from 2.27144

1520 Epoch 671/10000

1521 - 0s - loss: 0.8122 -

```
1521  mean_absolute_error: 0.5639 - val_loss
      : 15.1639 - val_mean_absolute_error: 2
      .3810
1522  Epoch 672/10000
1523   - 0s - loss: 0.8121 -
      mean_absolute_error: 0.5639 - val_loss
      : 15.1632 - val_mean_absolute_error: 2
      .3811
1524  Epoch 673/10000
1525   - 0s - loss: 0.8122 -
      mean_absolute_error: 0.5639 - val_loss
      : 15.1636 - val_mean_absolute_error: 2
      .3811
1526  Epoch 674/10000
1527   - 0s - loss: 0.8122 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1648 - val_mean_absolute_error: 2
      .3809
1528  Epoch 675/10000
1529   - 0s - loss: 0.8121 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1640 - val_mean_absolute_error: 2
      .3809
1530  Epoch 676/10000
```

1531 - 0s - loss: 0.8120 - mean_absolute_error: 0.5638 - val_loss: 15.1647 - val_mean_absolute_error: 2.3808

1532 Epoch 677/10000

1533 - 0s - loss: 0.8121 - mean_absolute_error: 0.5638 - val_loss: 15.1650 - val_mean_absolute_error: 2.3808

1534 Epoch 678/10000

1535 - 0s - loss: 0.8121 - mean_absolute_error: 0.5638 - val_loss: 15.1647 - val_mean_absolute_error: 2.3807

1536 Epoch 679/10000

1537 - 0s - loss: 0.8121 - mean_absolute_error: 0.5639 - val_loss: 15.1649 - val_mean_absolute_error: 2.3807

1538 Epoch 680/10000

1539 - 0s - loss: 0.8120 - mean_absolute_error: 0.5638 - val_loss: 15.1650 - val_mean_absolute_error: 2.3807

1540

1541 Epoch 00680: val_mean_absolute_error did not improve from 2.27144

1542 Epoch 681/10000

1543 - 0s - loss: 0.8121 - mean_absolute_error: 0.5638 - val_loss: 15.1652 - val_mean_absolute_error: 2.3806

1544 Epoch 682/10000

1545 - 0s - loss: 0.8121 - mean_absolute_error: 0.5638 - val_loss: 15.1647 - val_mean_absolute_error: 2.3808

1546 Epoch 683/10000

1547 - 0s - loss: 0.8119 - mean_absolute_error: 0.5637 - val_loss: 15.1651 - val_mean_absolute_error: 2.3807

1548 Epoch 684/10000

1549 - 0s - loss: 0.8120 - mean_absolute_error: 0.5638 - val_loss: 15.1651 - val_mean_absolute_error: 2.3807

1550 Epoch 685/10000

1551   - 0s - loss: 0.8120 - mean_absolute_error: 0.5637 - val_loss: 15.1656 - val_mean_absolute_error: 2.3806

1552 Epoch 686/10000

1553   - 0s - loss: 0.8119 - mean_absolute_error: 0.5637 - val_loss: 15.1648 - val_mean_absolute_error: 2.3806

1554 Epoch 687/10000

1555   - 0s - loss: 0.8119 - mean_absolute_error: 0.5638 - val_loss: 15.1652 - val_mean_absolute_error: 2.3805

1556 Epoch 688/10000

1557   - 0s - loss: 0.8118 - mean_absolute_error: 0.5637 - val_loss: 15.1657 - val_mean_absolute_error: 2.3805

1558 Epoch 689/10000

1559   - 0s - loss: 0.8119 - mean_absolute_error: 0.5638 - val_loss: 15.1657 - val_mean_absolute_error: 2.3805

1560 Epoch 690/10000
1561   - 0s - loss: 0.8119 - mean_absolute_error: 0.5637 - val_loss: 15.1658 - val_mean_absolute_error: 2.3805

1562
1563 Epoch 00690: val_mean_absolute_error did not improve from 2.27144
1564 Epoch 691/10000
1565   - 0s - loss: 0.8118 - mean_absolute_error: 0.5637 - val_loss: 15.1656 - val_mean_absolute_error: 2.3806
1566 Epoch 692/10000
1567   - 0s - loss: 0.8118 - mean_absolute_error: 0.5636 - val_loss: 15.1656 - val_mean_absolute_error: 2.3806
1568 Epoch 693/10000
1569   - 0s - loss: 0.8119 - mean_absolute_error: 0.5637 - val_loss: 15.1656 - val_mean_absolute_error: 2.3805
1570 Epoch 694/10000

1571 - 0s - loss: 0.8118 - mean_absolute_error: 0.5637 - val_loss: 15.1657 - val_mean_absolute_error: 2.3806

1572 Epoch 695/10000

1573 - 0s - loss: 0.8117 - mean_absolute_error: 0.5637 - val_loss: 15.1656 - val_mean_absolute_error: 2.3806

1574 Epoch 696/10000

1575 - 0s - loss: 0.8118 - mean_absolute_error: 0.5637 - val_loss: 15.1651 - val_mean_absolute_error: 2.3806

1576 Epoch 697/10000

1577 - 0s - loss: 0.8118 - mean_absolute_error: 0.5637 - val_loss: 15.1650 - val_mean_absolute_error: 2.3807

1578 Epoch 698/10000

1579 - 0s - loss: 0.8117 - mean_absolute_error: 0.5638 - val_loss: 15.1654 - val_mean_absolute_error: 2.3806

```
1580  Epoch 699/10000
1581   - 0s - loss: 0.8118 -
      mean_absolute_error: 0.5638 - val_loss
      : 15.1663 - val_mean_absolute_error: 2
      .3805
1582  Epoch 700/10000
1583   - 0s - loss: 0.8117 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1666 - val_mean_absolute_error: 2
      .3805
1584
1585  Epoch 00700: val_mean_absolute_error
      did not improve from 2.27144
1586  Epoch 701/10000
1587   - 0s - loss: 0.8118 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1669 - val_mean_absolute_error: 2
      .3804
1588  Epoch 702/10000
1589   - 0s - loss: 0.8118 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1665 - val_mean_absolute_error: 2
      .3805
1590  Epoch 703/10000
```

1591   - 0s - loss: 0.8118 - mean_absolute_error: 0.5637 - val_loss: 15.1658 - val_mean_absolute_error: 2.3806

1592   Epoch 704/10000

1593   - 0s - loss: 0.8117 - mean_absolute_error: 0.5638 - val_loss: 15.1668 - val_mean_absolute_error: 2.3804

1594   Epoch 705/10000

1595   - 0s - loss: 0.8116 - mean_absolute_error: 0.5637 - val_loss: 15.1676 - val_mean_absolute_error: 2.3803

1596   Epoch 706/10000

1597   - 0s - loss: 0.8118 - mean_absolute_error: 0.5636 - val_loss: 15.1674 - val_mean_absolute_error: 2.3803

1598   Epoch 707/10000

1599   - 0s - loss: 0.8117 - mean_absolute_error: 0.5638 - val_loss: 15.1675 - val_mean_absolute_error: 2.3803

```
1600 Epoch 708/10000
1601  - 0s - loss: 0.8117 -
mean_absolute_error: 0.5637 - val_loss
: 15.1677 - val_mean_absolute_error: 2
.3803
1602 Epoch 709/10000
1603  - 0s - loss: 0.8117 -
mean_absolute_error: 0.5636 - val_loss
: 15.1669 - val_mean_absolute_error: 2
.3804
1604 Epoch 710/10000
1605  - 0s - loss: 0.8117 -
mean_absolute_error: 0.5637 - val_loss
: 15.1670 - val_mean_absolute_error: 2
.3803
1606
1607 Epoch 00710: val_mean_absolute_error
did not improve from 2.27144
1608 Epoch 711/10000
1609  - 0s - loss: 0.8117 -
mean_absolute_error: 0.5636 - val_loss
: 15.1669 - val_mean_absolute_error: 2
.3803
1610 Epoch 712/10000
```

1611 - 0s - loss: 0.8116 - mean_absolute_error: 0.5637 - val_loss: 15.1672 - val_mean_absolute_error: 2.3803

1612 Epoch 713/10000

1613 - 0s - loss: 0.8116 - mean_absolute_error: 0.5637 - val_loss: 15.1668 - val_mean_absolute_error: 2.3805

1614 Epoch 714/10000

1615 - 0s - loss: 0.8117 - mean_absolute_error: 0.5637 - val_loss: 15.1666 - val_mean_absolute_error: 2.3805

1616 Epoch 715/10000

1617 - 0s - loss: 0.8117 - mean_absolute_error: 0.5637 - val_loss: 15.1657 - val_mean_absolute_error: 2.3806

1618 Epoch 716/10000

1619 - 0s - loss: 0.8116 - mean_absolute_error: 0.5637 - val_loss: 15.1660 - val_mean_absolute_error: 2.3805

1620 Epoch 717/10000

1621 - 0s - loss: 0.8116 - mean_absolute_error: 0.5637 - val_loss: 15.1661 - val_mean_absolute_error: 2.3805

1622 Epoch 718/10000

1623 - 0s - loss: 0.8118 - mean_absolute_error: 0.5637 - val_loss: 15.1668 - val_mean_absolute_error: 2.3805

1624 Epoch 719/10000

1625 - 0s - loss: 0.8116 - mean_absolute_error: 0.5637 - val_loss: 15.1670 - val_mean_absolute_error: 2.3804

1626 Epoch 720/10000

1627 - 0s - loss: 0.8116 - mean_absolute_error: 0.5636 - val_loss: 15.1666 - val_mean_absolute_error: 2.3804

1628

1629 Epoch 00720: val_mean_absolute_error did not improve from 2.27144

1630 Epoch 721/10000

1631   - 0s - loss: 0.8116 - mean_absolute_error: 0.5637 - val_loss: 15.1671 - val_mean_absolute_error: 2.3804

1632 Epoch 722/10000

1633   - 0s - loss: 0.8116 - mean_absolute_error: 0.5636 - val_loss: 15.1673 - val_mean_absolute_error: 2.3804

1634 Epoch 723/10000

1635   - 0s - loss: 0.8115 - mean_absolute_error: 0.5637 - val_loss: 15.1674 - val_mean_absolute_error: 2.3804

1636 Epoch 724/10000

1637   - 0s - loss: 0.8116 - mean_absolute_error: 0.5637 - val_loss: 15.1676 - val_mean_absolute_error: 2.3803

1638 Epoch 725/10000

1639   - 0s - loss: 0.8116 - mean_absolute_error: 0.5638 - val_loss: 15.1671 - val_mean_absolute_error: 2.3804

```
1640  Epoch 726/10000
1641   - 0s - loss: 0.8115 -
       mean_absolute_error: 0.5637 - val_loss
       : 15.1670 - val_mean_absolute_error: 2
       .3804
1642  Epoch 727/10000
1643   - 0s - loss: 0.8115 -
       mean_absolute_error: 0.5637 - val_loss
       : 15.1681 - val_mean_absolute_error: 2
       .3803
1644  Epoch 728/10000
1645   - 0s - loss: 0.8116 -
       mean_absolute_error: 0.5636 - val_loss
       : 15.1681 - val_mean_absolute_error: 2
       .3803
1646  Epoch 729/10000
1647   - 0s - loss: 0.8117 -
       mean_absolute_error: 0.5637 - val_loss
       : 15.1678 - val_mean_absolute_error: 2
       .3803
1648  Epoch 730/10000
1649   - 0s - loss: 0.8115 -
       mean_absolute_error: 0.5636 - val_loss
       : 15.1686 - val_mean_absolute_error: 2
```

1649 `.3802`

1650

1651 `Epoch 00730: val_mean_absolute_error did not improve from 2.27144`

1652 `Epoch 731/10000`

1653 ` - 0s - loss: 0.8116 - mean_absolute_error: 0.5636 - val_loss: 15.1675 - val_mean_absolute_error: 2.3803`

1654 `Epoch 732/10000`

1655 ` - 0s - loss: 0.8115 - mean_absolute_error: 0.5636 - val_loss: 15.1690 - val_mean_absolute_error: 2.3802`

1656 `Epoch 733/10000`

1657 ` - 0s - loss: 0.8115 - mean_absolute_error: 0.5636 - val_loss: 15.1684 - val_mean_absolute_error: 2.3803`

1658 `Epoch 734/10000`

1659 ` - 0s - loss: 0.8116 - mean_absolute_error: 0.5637 - val_loss: 15.1681 - val_mean_absolute_error: 2.3803`

```
1660  Epoch 735/10000
1661   - 0s - loss: 0.8115 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1680 - val_mean_absolute_error: 2
      .3803
1662  Epoch 736/10000
1663   - 0s - loss: 0.8117 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1678 - val_mean_absolute_error: 2
      .3803
1664  Epoch 737/10000
1665   - 0s - loss: 0.8115 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1677 - val_mean_absolute_error: 2
      .3803
1666  Epoch 738/10000
1667   - 0s - loss: 0.8116 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1687 - val_mean_absolute_error: 2
      .3802
1668  Epoch 739/10000
1669   - 0s - loss: 0.8115 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1683 - val_mean_absolute_error: 2
```

1669 .3803

1670 Epoch 740/10000

1671 - 0s - loss: 0.8115 - mean_absolute_error: 0.5636 - val_loss: 15.1694 - val_mean_absolute_error: 2.3802

1672

1673 Epoch 00740: val_mean_absolute_error did not improve from 2.27144

1674 Epoch 741/10000

1675 - 0s - loss: 0.8115 - mean_absolute_error: 0.5636 - val_loss: 15.1688 - val_mean_absolute_error: 2.3802

1676 Epoch 742/10000

1677 - 0s - loss: 0.8115 - mean_absolute_error: 0.5636 - val_loss: 15.1678 - val_mean_absolute_error: 2.3803

1678 Epoch 743/10000

1679 - 0s - loss: 0.8114 - mean_absolute_error: 0.5636 - val_loss: 15.1680 - val_mean_absolute_error: 2.3803

```
1680  Epoch 744/10000
1681   - 0s - loss: 0.8114 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1687 - val_mean_absolute_error: 2
      .3802
1682  Epoch 745/10000
1683   - 0s - loss: 0.8115 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1700 - val_mean_absolute_error: 2
      .3801
1684  Epoch 746/10000
1685   - 0s - loss: 0.8114 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1694 - val_mean_absolute_error: 2
      .3802
1686  Epoch 747/10000
1687   - 0s - loss: 0.8114 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1690 - val_mean_absolute_error: 2
      .3802
1688  Epoch 748/10000
1689   - 0s - loss: 0.8114 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1677 - val_mean_absolute_error: 2
```

1689 .3803
1690 Epoch 749/10000
1691 - 0s - loss: 0.8113 - mean_absolute_error: 0.5636 - val_loss: 15.1675 - val_mean_absolute_error: 2.3803
1692 Epoch 750/10000
1693 - 0s - loss: 0.8115 - mean_absolute_error: 0.5636 - val_loss: 15.1668 - val_mean_absolute_error: 2.3803

1694
1695 Epoch 00750: val_mean_absolute_error did not improve from 2.27144
1696 Epoch 751/10000
1697 - 0s - loss: 0.8115 - mean_absolute_error: 0.5637 - val_loss: 15.1680 - val_mean_absolute_error: 2.3802
1698 Epoch 752/10000
1699 - 0s - loss: 0.8113 - mean_absolute_error: 0.5636 - val_loss: 15.1676 - val_mean_absolute_error: 2.3803

```
1700  Epoch 753/10000
1701   - 0s - loss: 0.8113 -
      mean_absolute_error: 0.5637 - val_loss
      : 15.1696 - val_mean_absolute_error: 2
      .3801
1702  Epoch 754/10000
1703   - 0s - loss: 0.8113 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1701 - val_mean_absolute_error: 2
      .3801
1704  Epoch 755/10000
1705   - 0s - loss: 0.8115 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1697 - val_mean_absolute_error: 2
      .3802
1706  Epoch 756/10000
1707   - 0s - loss: 0.8114 -
      mean_absolute_error: 0.5635 - val_loss
      : 15.1693 - val_mean_absolute_error: 2
      .3802
1708  Epoch 757/10000
1709   - 0s - loss: 0.8113 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1695 - val_mean_absolute_error: 2
```

1709 .3802

1710 Epoch 758/10000

1711 - 0s - loss: 0.8113 - mean_absolute_error: 0.5636 - val_loss: 15.1694 - val_mean_absolute_error: 2.3802

1712 Epoch 759/10000

1713 - 0s - loss: 0.8114 - mean_absolute_error: 0.5636 - val_loss: 15.1697 - val_mean_absolute_error: 2.3801

1714 Epoch 760/10000

1715 - 0s - loss: 0.8113 - mean_absolute_error: 0.5636 - val_loss: 15.1686 - val_mean_absolute_error: 2.3802

1716

1717 Epoch 00760: val_mean_absolute_error did not improve from 2.27144

1718 Epoch 761/10000

1719 - 0s - loss: 0.8113 - mean_absolute_error: 0.5635 - val_loss: 15.1689 - val_mean_absolute_error: 2.3802

```
1720  Epoch 762/10000
1721   - 0s - loss: 0.8113 -
      mean_absolute_error: 0.5635 - val_loss
      : 15.1674 - val_mean_absolute_error: 2
      .3803
1722  Epoch 763/10000
1723   - 0s - loss: 0.8114 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1677 - val_mean_absolute_error: 2
      .3803
1724  Epoch 764/10000
1725   - 0s - loss: 0.8113 -
      mean_absolute_error: 0.5635 - val_loss
      : 15.1677 - val_mean_absolute_error: 2
      .3803

1726
1727  Epoch 00764: ReduceLROnPlateau
      reducing learning rate to 1e-06.
1728  Epoch 765/10000
1729   - 0s - loss: 0.8113 -
      mean_absolute_error: 0.5636 - val_loss
      : 15.1670 - val_mean_absolute_error: 2
      .3804
1730  Epoch 766/10000
```

1731 - 0s - loss: 0.8113 - mean_absolute_error: 0.5636 - val_loss: 15.1671 - val_mean_absolute_error: 2.3804

1732 Epoch 767/10000

1733 - 0s - loss: 0.8113 - mean_absolute_error: 0.5636 - val_loss: 15.1671 - val_mean_absolute_error: 2.3804

1734 Epoch 768/10000

1735 - 0s - loss: 0.8113 - mean_absolute_error: 0.5635 - val_loss: 15.1676 - val_mean_absolute_error: 2.3803

1736 Epoch 769/10000

1737 - 0s - loss: 0.8113 - mean_absolute_error: 0.5635 - val_loss: 15.1674 - val_mean_absolute_error: 2.3804

1738 Epoch 770/10000

1739 - 0s - loss: 0.8115 - mean_absolute_error: 0.5636 - val_loss: 15.1678 - val_mean_absolute_error: 2.3803

1740

1741 Epoch 00770: val_mean_absolute_error did not improve from 2.27144

1742 Epoch 771/10000

1743 - 0s - loss: 0.8114 - mean_absolute_error: 0.5636 - val_loss: 15.1679 - val_mean_absolute_error: 2.3803

1744 Epoch 772/10000

1745 - 0s - loss: 0.8113 - mean_absolute_error: 0.5637 - val_loss: 15.1689 - val_mean_absolute_error: 2.3801

1746 Epoch 773/10000

1747 - 0s - loss: 0.8112 - mean_absolute_error: 0.5636 - val_loss: 15.1694 - val_mean_absolute_error: 2.3801

1748 Epoch 774/10000

1749 - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1703 - val_mean_absolute_error: 2.3800

1750 Epoch 775/10000

```
1751   - 0s - loss: 0.8112 -
mean_absolute_error: 0.5635 - val_loss
: 15.1698 - val_mean_absolute_error: 2
.3799
1752 Epoch 776/10000
1753   - 0s - loss: 0.8113 -
mean_absolute_error: 0.5636 - val_loss
: 15.1697 - val_mean_absolute_error: 2
.3799
1754 Epoch 777/10000
1755   - 0s - loss: 0.8113 -
mean_absolute_error: 0.5636 - val_loss
: 15.1703 - val_mean_absolute_error: 2
.3799
1756 Epoch 778/10000
1757   - 0s - loss: 0.8113 -
mean_absolute_error: 0.5635 - val_loss
: 15.1703 - val_mean_absolute_error: 2
.3800
1758 Epoch 779/10000
1759   - 0s - loss: 0.8113 -
mean_absolute_error: 0.5635 - val_loss
: 15.1692 - val_mean_absolute_error: 2
.3801
```

1760 Epoch 780/10000
1761   - 0s - loss: 0.8113 - mean_absolute_error: 0.5635 - val_loss: 15.1688 - val_mean_absolute_error: 2.3802

1762

1763 Epoch 00780: val_mean_absolute_error did not improve from 2.27144
1764 Epoch 781/10000
1765   - 0s - loss: 0.8113 - mean_absolute_error: 0.5635 - val_loss: 15.1687 - val_mean_absolute_error: 2.3802
1766 Epoch 782/10000
1767   - 0s - loss: 0.8113 - mean_absolute_error: 0.5635 - val_loss: 15.1685 - val_mean_absolute_error: 2.3802
1768 Epoch 783/10000
1769   - 0s - loss: 0.8112 - mean_absolute_error: 0.5636 - val_loss: 15.1689 - val_mean_absolute_error: 2.3802
1770 Epoch 784/10000

1771   - 0s - loss: 0.8113 - mean_absolute_error: 0.5635 - val_loss: 15.1681 - val_mean_absolute_error: 2.3803

1772 Epoch 785/10000

1773   - 0s - loss: 0.8112 - mean_absolute_error: 0.5636 - val_loss: 15.1686 - val_mean_absolute_error: 2.3802

1774 Epoch 786/10000

1775   - 0s - loss: 0.8113 - mean_absolute_error: 0.5635 - val_loss: 15.1693 - val_mean_absolute_error: 2.3802

1776 Epoch 787/10000

1777   - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1687 - val_mean_absolute_error: 2.3802

1778 Epoch 788/10000

1779   - 0s - loss: 0.8113 - mean_absolute_error: 0.5636 - val_loss: 15.1686 - val_mean_absolute_error: 2.3803

1780 Epoch 789/10000
1781 - 0s - loss: 0.8113 - mean_absolute_error: 0.5635 - val_loss: 15.1690 - val_mean_absolute_error: 2.3802
1782 Epoch 790/10000
1783 - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1682 - val_mean_absolute_error: 2.3803
1784
1785 Epoch 00790: val_mean_absolute_error did not improve from 2.27144
1786 Epoch 791/10000
1787 - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1680 - val_mean_absolute_error: 2.3803
1788 Epoch 792/10000
1789 - 0s - loss: 0.8112 - mean_absolute_error: 0.5636 - val_loss: 15.1674 - val_mean_absolute_error: 2.3804
1790 Epoch 793/10000

1791   - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1666 - val_mean_absolute_error: 2.3804

1792 Epoch 794/10000

1793   - 0s - loss: 0.8111 - mean_absolute_error: 0.5636 - val_loss: 15.1668 - val_mean_absolute_error: 2.3805

1794 Epoch 795/10000

1795   - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1667 - val_mean_absolute_error: 2.3805

1796 Epoch 796/10000

1797   - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1675 - val_mean_absolute_error: 2.3803

1798 Epoch 797/10000

1799   - 0s - loss: 0.8112 - mean_absolute_error: 0.5634 - val_loss: 15.1674 - val_mean_absolute_error: 2.3804

```
1800  Epoch 798/10000
1801   - 0s - loss: 0.8110 -
      mean_absolute_error: 0.5635 - val_loss
      : 15.1665 - val_mean_absolute_error: 2
      .3805
1802  Epoch 799/10000
1803   - 0s - loss: 0.8113 -
      mean_absolute_error: 0.5635 - val_loss
      : 15.1655 - val_mean_absolute_error: 2
      .3806
1804  Epoch 800/10000
1805   - 0s - loss: 0.8111 -
      mean_absolute_error: 0.5634 - val_loss
      : 15.1652 - val_mean_absolute_error: 2
      .3806
1806
1807  Epoch 00800: val_mean_absolute_error
      did not improve from 2.27144
1808  Epoch 801/10000
1809   - 0s - loss: 0.8112 -
      mean_absolute_error: 0.5635 - val_loss
      : 15.1653 - val_mean_absolute_error: 2
      .3806
1810  Epoch 802/10000
```

1811   - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1652 - val_mean_absolute_error: 2.3807

1812 Epoch 803/10000

1813   - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1658 - val_mean_absolute_error: 2.3806

1814 Epoch 804/10000

1815   - 0s - loss: 0.8111 - mean_absolute_error: 0.5635 - val_loss: 15.1658 - val_mean_absolute_error: 2.3806

1816 Epoch 805/10000

1817   - 0s - loss: 0.8111 - mean_absolute_error: 0.5635 - val_loss: 15.1657 - val_mean_absolute_error: 2.3806

1818 Epoch 806/10000

1819   - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1654 - val_mean_absolute_error: 2.3806

1820 Epoch 807/10000
1821 - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1656 - val_mean_absolute_error: 2.3805
1822 Epoch 808/10000
1823 - 0s - loss: 0.8111 - mean_absolute_error: 0.5635 - val_loss: 15.1661 - val_mean_absolute_error: 2.3805
1824 Epoch 809/10000
1825 - 0s - loss: 0.8110 - mean_absolute_error: 0.5635 - val_loss: 15.1648 - val_mean_absolute_error: 2.3806
1826 Epoch 810/10000
1827 - 0s - loss: 0.8112 - mean_absolute_error: 0.5635 - val_loss: 15.1645 - val_mean_absolute_error: 2.3806

1828

1829 Epoch 00810: val_mean_absolute_error did not improve from 2.27144
1830 Epoch 811/10000

1831   - 0s - loss: 0.8111 - mean_absolute_error: 0.5635 - val_loss: 15.1652 - val_mean_absolute_error: 2.3805

1832   Epoch 812/10000

1833   - 0s - loss: 0.8110 - mean_absolute_error: 0.5635 - val_loss: 15.1657 - val_mean_absolute_error: 2.3805

1834   Epoch 813/10000

1835   - 0s - loss: 0.8111 - mean_absolute_error: 0.5636 - val_loss: 15.1658 - val_mean_absolute_error: 2.3805

1836   Epoch 814/10000

1837   - 0s - loss: 0.8111 - mean_absolute_error: 0.5635 - val_loss: 15.1660 - val_mean_absolute_error: 2.3805

1838   Epoch 815/10000

1839   - 0s - loss: 0.8110 - mean_absolute_error: 0.5634 - val_loss: 15.1659 - val_mean_absolute_error: 2.3806

1840 Epoch 816/10000

1841 - 0s - loss: 0.8110 - mean_absolute_error: 0.5634 - val_loss: 15.1649 - val_mean_absolute_error: 2.3806

1842 Epoch 817/10000

1843 - 0s - loss: 0.8111 - mean_absolute_error: 0.5636 - val_loss: 15.1650 - val_mean_absolute_error: 2.3806

1844 Epoch 818/10000

1845 - 0s - loss: 0.8111 - mean_absolute_error: 0.5636 - val_loss: 15.1660 - val_mean_absolute_error: 2.3805

1846 Epoch 819/10000

1847 - 0s - loss: 0.8111 - mean_absolute_error: 0.5635 - val_loss: 15.1649 - val_mean_absolute_error: 2.3806

1848 Epoch 820/10000

1849 - 0s - loss: 0.8111 - mean_absolute_error: 0.5634 - val_loss: 15.1644 - val_mean_absolute_error: 2

1849 .3806

1850

1851 Epoch 00820: val_mean_absolute_error did not improve from 2.27144

1852 Epoch 821/10000

1853 - 0s - loss: 0.8110 - mean_absolute_error: 0.5634 - val_loss: 15.1647 - val_mean_absolute_error: 2.3806

1854 Epoch 822/10000

1855 - 0s - loss: 0.8111 - mean_absolute_error: 0.5634 - val_loss: 15.1646 - val_mean_absolute_error: 2.3806

1856 Epoch 823/10000

1857 - 0s - loss: 0.8110 - mean_absolute_error: 0.5634 - val_loss: 15.1659 - val_mean_absolute_error: 2.3805

1858 Epoch 824/10000

1859 - 0s - loss: 0.8110 - mean_absolute_error: 0.5634 - val_loss: 15.1657 - val_mean_absolute_error: 2.3805

```
1860  Epoch 825/10000
1861   - 0s - loss: 0.8111 -
mean_absolute_error: 0.5634 - val_loss
: 15.1677 - val_mean_absolute_error: 2
.3803
1862  Epoch 826/10000
1863   - 0s - loss: 0.8110 -
mean_absolute_error: 0.5634 - val_loss
: 15.1679 - val_mean_absolute_error: 2
.3803
1864  Epoch 827/10000
1865   - 0s - loss: 0.8110 -
mean_absolute_error: 0.5635 - val_loss
: 15.1668 - val_mean_absolute_error: 2
.3804
1866  Epoch 828/10000
1867   - 0s - loss: 0.8109 -
mean_absolute_error: 0.5634 - val_loss
: 15.1669 - val_mean_absolute_error: 2
.3803
1868  Epoch 829/10000
1869   - 0s - loss: 0.8110 -
mean_absolute_error: 0.5634 - val_loss
: 15.1661 - val_mean_absolute_error: 2
```

1869 .3804

1870 Epoch 830/10000

1871 - 0s - loss: 0.8109 - mean_absolute_error: 0.5635 - val_loss: 15.1655 - val_mean_absolute_error: 2.3805

1872

1873 Epoch 00830: val_mean_absolute_error did not improve from 2.27144

1874 Epoch 831/10000

1875 - 0s - loss: 0.8109 - mean_absolute_error: 0.5634 - val_loss: 15.1657 - val_mean_absolute_error: 2.3805

1876 Epoch 832/10000

1877 - 0s - loss: 0.8110 - mean_absolute_error: 0.5635 - val_loss: 15.1669 - val_mean_absolute_error: 2.3803

1878 Epoch 833/10000

1879 - 0s - loss: 0.8109 - mean_absolute_error: 0.5634 - val_loss: 15.1673 - val_mean_absolute_error: 2.3803

1880 Epoch 834/10000

1881 - 0s - loss: 0.8110 -
mean_absolute_error: 0.5634 - val_loss
: 15.1671 - val_mean_absolute_error: 2
.3803

1882 Epoch 835/10000

1883 - 0s - loss: 0.8109 -
mean_absolute_error: 0.5634 - val_loss
: 15.1660 - val_mean_absolute_error: 2
.3804

1884 Epoch 836/10000

1885 - 0s - loss: 0.8110 -
mean_absolute_error: 0.5634 - val_loss
: 15.1662 - val_mean_absolute_error: 2
.3803

1886 Epoch 837/10000

1887 - 0s - loss: 0.8110 -
mean_absolute_error: 0.5633 - val_loss
: 15.1663 - val_mean_absolute_error: 2
.3804

1888 Epoch 838/10000

1889 - 0s - loss: 0.8110 -
mean_absolute_error: 0.5634 - val_loss
: 15.1652 - val_mean_absolute_error: 2

```
1889  .3804
1890  Epoch 839/10000
1891   - 0s - loss: 0.8109 -
      mean_absolute_error: 0.5634 - val_loss
      : 15.1656 - val_mean_absolute_error: 2
      .3804
1892  Epoch 840/10000
1893   - 0s - loss: 0.8110 -
      mean_absolute_error: 0.5633 - val_loss
      : 15.1655 - val_mean_absolute_error: 2
      .3804

1894
1895  Epoch 00840: val_mean_absolute_error
      did not improve from 2.27144
1896  Epoch 841/10000
1897   - 0s - loss: 0.8109 -
      mean_absolute_error: 0.5634 - val_loss
      : 15.1655 - val_mean_absolute_error: 2
      .3804
1898  Epoch 842/10000
1899   - 0s - loss: 0.8110 -
      mean_absolute_error: 0.5634 - val_loss
      : 15.1669 - val_mean_absolute_error: 2
      .3802
```

1900 Epoch 843/10000
1901 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1663 - val_mean_absolute_error: 2.3804
1902 Epoch 844/10000
1903 - 0s - loss: 0.8110 - mean_absolute_error: 0.5633 - val_loss: 15.1666 - val_mean_absolute_error: 2.3804
1904 Epoch 845/10000
1905 - 0s - loss: 0.8110 - mean_absolute_error: 0.5634 - val_loss: 15.1665 - val_mean_absolute_error: 2.3804
1906 Epoch 846/10000
1907 - 0s - loss: 0.8109 - mean_absolute_error: 0.5633 - val_loss: 15.1663 - val_mean_absolute_error: 2.3804
1908 Epoch 847/10000
1909 - 0s - loss: 0.8109 - mean_absolute_error: 0.5634 - val_loss: 15.1661 - val_mean_absolute_error: 2

1909 .3805
1910 Epoch 848/10000
1911 - 0s - loss: 0.8110 - mean_absolute_error: 0.5634 - val_loss: 15.1664 - val_mean_absolute_error: 2.3805
1912 Epoch 849/10000
1913 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1665 - val_mean_absolute_error: 2.3805
1914 Epoch 850/10000
1915 - 0s - loss: 0.8109 - mean_absolute_error: 0.5633 - val_loss: 15.1664 - val_mean_absolute_error: 2.3805
1916
1917 Epoch 00850: val_mean_absolute_error did not improve from 2.27144
1918 Epoch 851/10000
1919 - 0s - loss: 0.8110 - mean_absolute_error: 0.5633 - val_loss: 15.1665 - val_mean_absolute_error: 2.3805

1920 Epoch 852/10000
1921 - 0s - loss: 0.8110 - mean_absolute_error: 0.5634 - val_loss: 15.1667 - val_mean_absolute_error: 2.3805
1922 Epoch 853/10000
1923 - 0s - loss: 0.8110 - mean_absolute_error: 0.5633 - val_loss: 15.1663 - val_mean_absolute_error: 2.3806
1924 Epoch 854/10000
1925 - 0s - loss: 0.8109 - mean_absolute_error: 0.5633 - val_loss: 15.1663 - val_mean_absolute_error: 2.3805
1926 Epoch 855/10000
1927 - 0s - loss: 0.8109 - mean_absolute_error: 0.5634 - val_loss: 15.1663 - val_mean_absolute_error: 2.3806
1928 Epoch 856/10000
1929 - 0s - loss: 0.8109 - mean_absolute_error: 0.5634 - val_loss: 15.1666 - val_mean_absolute_error: 2

1929 .3805

1930 Epoch 857/10000

1931 - 0s - loss: 0.8108 - mean_absolute_error: 0.5634 - val_loss: 15.1670 - val_mean_absolute_error: 2.3805

1932 Epoch 858/10000

1933 - 0s - loss: 0.8110 - mean_absolute_error: 0.5633 - val_loss: 15.1666 - val_mean_absolute_error: 2.3805

1934 Epoch 859/10000

1935 - 0s - loss: 0.8109 - mean_absolute_error: 0.5633 - val_loss: 15.1667 - val_mean_absolute_error: 2.3805

1936 Epoch 860/10000

1937 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1666 - val_mean_absolute_error: 2.3805

1938

1939 Epoch 00860: val_mean_absolute_error did not improve from 2.27144

1940 Epoch 861/10000

1941 - 0s - loss: 0.8109 - mean_absolute_error: 0.5633 - val_loss: 15.1672 - val_mean_absolute_error: 2.3803

1942 Epoch 862/10000

1943 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1663 - val_mean_absolute_error: 2.3805

1944 Epoch 863/10000

1945 - 0s - loss: 0.8109 - mean_absolute_error: 0.5633 - val_loss: 15.1662 - val_mean_absolute_error: 2.3805

1946 Epoch 864/10000

1947 - 0s - loss: 0.8108 - mean_absolute_error: 0.5632 - val_loss: 15.1650 - val_mean_absolute_error: 2.3806

1948 Epoch 865/10000

1949 - 0s - loss: 0.8108 - mean_absolute_error: 0.5634 - val_loss: 15.1659 - val_mean_absolute_error: 2

1949 .3805

1950 Epoch 866/10000

1951 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1662 - val_mean_absolute_error: 2.3805

1952 Epoch 867/10000

1953 - 0s - loss: 0.8108 - mean_absolute_error: 0.5634 - val_loss: 15.1664 - val_mean_absolute_error: 2.3804

1954 Epoch 868/10000

1955 - 0s - loss: 0.8107 - mean_absolute_error: 0.5633 - val_loss: 15.1656 - val_mean_absolute_error: 2.3805

1956 Epoch 869/10000

1957 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1671 - val_mean_absolute_error: 2.3803

1958 Epoch 870/10000

1959 - 0s - loss: 0.8107 - mean_absolute_error: 0.5633 - val_loss

1959 : 15.1671 - val_mean_absolute_error: 2.3803

1960

1961 Epoch 00870: val_mean_absolute_error did not improve from 2.27144

1962 Epoch 871/10000

1963 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1682 - val_mean_absolute_error: 2.3802

1964 Epoch 872/10000

1965 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1679 - val_mean_absolute_error: 2.3803

1966 Epoch 873/10000

1967 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1676 - val_mean_absolute_error: 2.3804

1968 Epoch 874/10000

1969 - 0s - loss: 0.8107 - mean_absolute_error: 0.5632 - val_loss: 15.1678 - val_mean_absolute_error: 2

1969 .3803

1970 Epoch 875/10000

1971 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1680 - val_mean_absolute_error: 2.3804

1972 Epoch 876/10000

1973 - 0s - loss: 0.8108 - mean_absolute_error: 0.5632 - val_loss: 15.1682 - val_mean_absolute_error: 2.3803

1974 Epoch 877/10000

1975 - 0s - loss: 0.8108 - mean_absolute_error: 0.5632 - val_loss: 15.1677 - val_mean_absolute_error: 2.3805

1976 Epoch 878/10000

1977 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1661 - val_mean_absolute_error: 2.3806

1978 Epoch 879/10000

1979 - 0s - loss: 0.8108 - mean_absolute_error: 0.5632 - val_loss

1979 : 15.1671 - val_mean_absolute_error: 2.3806

1980 Epoch 880/10000

1981 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1665 - val_mean_absolute_error: 2.3806

1982

1983 Epoch 00880: val_mean_absolute_error did not improve from 2.27144

1984 Epoch 881/10000

1985 - 0s - loss: 0.8107 - mean_absolute_error: 0.5633 - val_loss: 15.1671 - val_mean_absolute_error: 2.3806

1986 Epoch 882/10000

1987 - 0s - loss: 0.8108 - mean_absolute_error: 0.5632 - val_loss: 15.1671 - val_mean_absolute_error: 2.3805

1988 Epoch 883/10000

1989 - 0s - loss: 0.8109 - mean_absolute_error: 0.5632 - val_loss: 15.1668 - val_mean_absolute_error: 2

1989 .3805

1990 Epoch 884/10000

1991 - 0s - loss: 0.8108 - mean_absolute_error: 0.5632 - val_loss: 15.1664 - val_mean_absolute_error: 2.3806

1992 Epoch 885/10000

1993 - 0s - loss: 0.8108 - mean_absolute_error: 0.5632 - val_loss: 15.1665 - val_mean_absolute_error: 2.3806

1994 Epoch 886/10000

1995 - 0s - loss: 0.8107 - mean_absolute_error: 0.5632 - val_loss: 15.1676 - val_mean_absolute_error: 2.3805

1996 Epoch 887/10000

1997 - 0s - loss: 0.8107 - mean_absolute_error: 0.5632 - val_loss: 15.1676 - val_mean_absolute_error: 2.3805

1998 Epoch 888/10000

1999 - 0s - loss: 0.8107 - mean_absolute_error: 0.5631 - val_loss

1999 : 15.1671 - val_mean_absolute_error: 2 .3806

2000 Epoch 889/10000

2001 - 0s - loss: 0.8107 - mean_absolute_error: 0.5632 - val_loss : 15.1665 - val_mean_absolute_error: 2 .3807

2002 Epoch 890/10000

2003 - 0s - loss: 0.8107 - mean_absolute_error: 0.5633 - val_loss : 15.1657 - val_mean_absolute_error: 2 .3807

2004

2005 Epoch 00890: val_mean_absolute_error did not improve from 2.27144

2006 Epoch 891/10000

2007 - 0s - loss: 0.8107 - mean_absolute_error: 0.5633 - val_loss : 15.1661 - val_mean_absolute_error: 2 .3808

2008 Epoch 892/10000

2009 - 0s - loss: 0.8107 - mean_absolute_error: 0.5633 - val_loss : 15.1662 - val_mean_absolute_error: 2

2009 .3808

2010 Epoch 893/10000

2011 - 0s - loss: 0.8107 - mean_absolute_error: 0.5634 - val_loss: 15.1657 - val_mean_absolute_error: 2.3808

2012 Epoch 894/10000

2013 - 0s - loss: 0.8107 - mean_absolute_error: 0.5633 - val_loss: 15.1660 - val_mean_absolute_error: 2.3808

2014 Epoch 895/10000

2015 - 0s - loss: 0.8106 - mean_absolute_error: 0.5633 - val_loss: 15.1659 - val_mean_absolute_error: 2.3808

2016 Epoch 896/10000

2017 - 0s - loss: 0.8106 - mean_absolute_error: 0.5633 - val_loss: 15.1662 - val_mean_absolute_error: 2.3808

2018 Epoch 897/10000

2019 - 0s - loss: 0.8107 - mean_absolute_error: 0.5634 - val_loss

2019 : 15.1667 - val_mean_absolute_error: 2.3808

2020 Epoch 898/10000

2021 - 0s - loss: 0.8108 - mean_absolute_error: 0.5633 - val_loss: 15.1666 - val_mean_absolute_error: 2.3807

2022 Epoch 899/10000

2023 - 0s - loss: 0.8106 - mean_absolute_error: 0.5633 - val_loss: 15.1667 - val_mean_absolute_error: 2.3807

2024 Epoch 900/10000

2025 - 0s - loss: 0.8107 - mean_absolute_error: 0.5633 - val_loss: 15.1669 - val_mean_absolute_error: 2.3807

2026

2027 Epoch 00900: val_mean_absolute_error did not improve from 2.27144

2028 Epoch 901/10000

2029 - 0s - loss: 0.8107 - mean_absolute_error: 0.5632 - val_loss: 15.1673 - val_mean_absolute_error: 2

2029 .3807

2030 Epoch 902/10000

2031 - 0s - loss: 0.8106 - mean_absolute_error: 0.5631 - val_loss: 15.1674 - val_mean_absolute_error: 2.3807

2032 Epoch 903/10000

2033 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss: 15.1679 - val_mean_absolute_error: 2.3806

2034 Epoch 904/10000

2035 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss: 15.1669 - val_mean_absolute_error: 2.3807

2036 Epoch 905/10000

2037 - 0s - loss: 0.8106 - mean_absolute_error: 0.5633 - val_loss: 15.1673 - val_mean_absolute_error: 2.3807

2038 Epoch 906/10000

2039 - 0s - loss: 0.8106 - mean_absolute_error: 0.5633 - val_loss

2039 : 15.1679 - val_mean_absolute_error: 2.3805

2040 Epoch 907/10000

2041 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss: 15.1676 - val_mean_absolute_error: 2.3806

2042 Epoch 908/10000

2043 - 0s - loss: 0.8106 - mean_absolute_error: 0.5631 - val_loss: 15.1676 - val_mean_absolute_error: 2.3806

2044 Epoch 909/10000

2045 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss: 15.1679 - val_mean_absolute_error: 2.3805

2046 Epoch 910/10000

2047 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss: 15.1677 - val_mean_absolute_error: 2.3805

2048

2049 Epoch 00910: val_mean_absolute_error

2049 did not improve from 2.27144

2050 Epoch 911/10000

2051 - 0s - loss: 0.8105 - mean_absolute_error: 0.5631 - val_loss: 15.1675 - val_mean_absolute_error: 2.3805

2052 Epoch 912/10000

2053 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss: 15.1679 - val_mean_absolute_error: 2.3805

2054 Epoch 913/10000

2055 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss: 15.1684 - val_mean_absolute_error: 2.3805

2056 Epoch 914/10000

2057 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss: 15.1671 - val_mean_absolute_error: 2.3806

2058 Epoch 915/10000

2059 - 0s - loss: 0.8105 - mean_absolute_error: 0.5632 - val_loss

2059 : 15.1661 - val_mean_absolute_error: 2
.3807

2060 Epoch 916/10000

2061 - 0s - loss: 0.8105 -
mean_absolute_error: 0.5632 - val_loss
: 15.1664 - val_mean_absolute_error: 2
.3806

2062 Epoch 917/10000

2063 - 0s - loss: 0.8105 -
mean_absolute_error: 0.5632 - val_loss
: 15.1665 - val_mean_absolute_error: 2
.3807

2064 Epoch 918/10000

2065 - 0s - loss: 0.8105 -
mean_absolute_error: 0.5632 - val_loss
: 15.1668 - val_mean_absolute_error: 2
.3807

2066 Epoch 919/10000

2067 - 0s - loss: 0.8105 -
mean_absolute_error: 0.5633 - val_loss
: 15.1672 - val_mean_absolute_error: 2
.3806

2068 Epoch 920/10000

2069 - 0s - loss: 0.8105 -

2069 mean_absolute_error: 0.5632 - val_loss: 15.1671 - val_mean_absolute_error: 2.3807

2070

2071 Epoch 00920: val_mean_absolute_error did not improve from 2.27144

2072 Epoch 921/10000

2073 - 0s - loss: 0.8105 - mean_absolute_error: 0.5632 - val_loss: 15.1677 - val_mean_absolute_error: 2.3807

2074 Epoch 922/10000

2075 - 0s - loss: 0.8105 - mean_absolute_error: 0.5632 - val_loss: 15.1670 - val_mean_absolute_error: 2.3807

2076 Epoch 923/10000

2077 - 0s - loss: 0.8105 - mean_absolute_error: 0.5632 - val_loss: 15.1668 - val_mean_absolute_error: 2.3808

2078 Epoch 924/10000

2079 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss

2079 : 15.1671 - val_mean_absolute_error: 2 .3808

2080 Epoch 925/10000

2081 - 0s - loss: 0.8106 - mean_absolute_error: 0.5633 - val_loss : 15.1665 - val_mean_absolute_error: 2 .3808

2082 Epoch 926/10000

2083 - 0s - loss: 0.8105 - mean_absolute_error: 0.5632 - val_loss : 15.1674 - val_mean_absolute_error: 2 .3807

2084 Epoch 927/10000

2085 - 0s - loss: 0.8105 - mean_absolute_error: 0.5631 - val_loss : 15.1678 - val_mean_absolute_error: 2 .3806

2086 Epoch 928/10000

2087 - 0s - loss: 0.8105 - mean_absolute_error: 0.5632 - val_loss : 15.1683 - val_mean_absolute_error: 2 .3806

2088 Epoch 929/10000

2089 - 0s - loss: 0.8106 -

2089 mean_absolute_error: 0.5633 - val_loss : 15.1682 - val_mean_absolute_error: 2 .3807

2090 Epoch 930/10000

2091 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss : 15.1682 - val_mean_absolute_error: 2 .3808

2092

2093 Epoch 00930: val_mean_absolute_error did not improve from 2.27144

2094 Epoch 931/10000

2095 - 0s - loss: 0.8106 - mean_absolute_error: 0.5631 - val_loss : 15.1680 - val_mean_absolute_error: 2 .3808

2096 Epoch 932/10000

2097 - 0s - loss: 0.8106 - mean_absolute_error: 0.5631 - val_loss : 15.1673 - val_mean_absolute_error: 2 .3808

2098 Epoch 933/10000

2099 - 0s - loss: 0.8105 - mean_absolute_error: 0.5631 - val_loss

2099 : 15.1669 - val_mean_absolute_error: 2.3808

2100 Epoch 934/10000

2101 - 0s - loss: 0.8104 - mean_absolute_error: 0.5632 - val_loss: 15.1669 - val_mean_absolute_error: 2.3808

2102 Epoch 935/10000

2103 - 0s - loss: 0.8106 - mean_absolute_error: 0.5632 - val_loss: 15.1670 - val_mean_absolute_error: 2.3808

2104 Epoch 936/10000

2105 - 0s - loss: 0.8104 - mean_absolute_error: 0.5632 - val_loss: 15.1676 - val_mean_absolute_error: 2.3807

2106 Epoch 937/10000

2107 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss: 15.1674 - val_mean_absolute_error: 2.3809

2108 Epoch 938/10000

2109 - 0s - loss: 0.8105 -

2109 mean_absolute_error: 0.5633 - val_loss: 15.1675 - val_mean_absolute_error: 2.3809

2110 Epoch 939/10000

2111 - 0s - loss: 0.8104 - mean_absolute_error: 0.5632 - val_loss: 15.1682 - val_mean_absolute_error: 2.3808

2112 Epoch 940/10000

2113 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss: 15.1674 - val_mean_absolute_error: 2.3810

2114

2115 Epoch 00940: val_mean_absolute_error did not improve from 2.27144

2116 Epoch 941/10000

2117 - 0s - loss: 0.8105 - mean_absolute_error: 0.5633 - val_loss: 15.1676 - val_mean_absolute_error: 2.3809

2118 Epoch 942/10000

2119 - 0s - loss: 0.8104 - mean_absolute_error: 0.5632 - val_loss

2119 : 15.1680 - val_mean_absolute_error: 2 .3808

2120 Epoch 943/10000

2121 - 0s - loss: 0.8105 - mean_absolute_error: 0.5631 - val_loss : 15.1675 - val_mean_absolute_error: 2 .3809

2122 Epoch 944/10000

2123 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss : 15.1688 - val_mean_absolute_error: 2 .3807

2124 Epoch 945/10000

2125 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss : 15.1672 - val_mean_absolute_error: 2 .3809

2126 Epoch 946/10000

2127 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss : 15.1672 - val_mean_absolute_error: 2 .3810

2128 Epoch 947/10000

2129 - 0s - loss: 0.8104 -

2129 mean_absolute_error: 0.5631 - val_loss: 15.1686 - val_mean_absolute_error: 2.3809

2130 Epoch 948/10000

2131 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss: 15.1686 - val_mean_absolute_error: 2.3808

2132 Epoch 949/10000

2133 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss: 15.1681 - val_mean_absolute_error: 2.3808

2134 Epoch 950/10000

2135 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss: 15.1672 - val_mean_absolute_error: 2.3810

2136

2137 Epoch 00950: val_mean_absolute_error did not improve from 2.27144

2138 Epoch 951/10000

2139 - 0s - loss: 0.8104 - mean_absolute_error: 0.5632 - val_loss

2139 : 15.1674 - val_mean_absolute_error: 2 .3809

2140 Epoch 952/10000

2141 - 0s - loss: 0.8105 - mean_absolute_error: 0.5631 - val_loss : 15.1678 - val_mean_absolute_error: 2 .3809

2142 Epoch 953/10000

2143 - 0s - loss: 0.8104 - mean_absolute_error: 0.5632 - val_loss : 15.1674 - val_mean_absolute_error: 2 .3809

2144 Epoch 954/10000

2145 - 0s - loss: 0.8104 - mean_absolute_error: 0.5632 - val_loss : 15.1675 - val_mean_absolute_error: 2 .3809

2146 Epoch 955/10000

2147 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss : 15.1674 - val_mean_absolute_error: 2 .3809

2148 Epoch 956/10000

2149 - 0s - loss: 0.8103 -

```
2149  mean_absolute_error: 0.5631 - val_loss
      : 15.1676 - val_mean_absolute_error: 2
      .3809
2150  Epoch 957/10000
2151   - 0s - loss: 0.8104 -
      mean_absolute_error: 0.5631 - val_loss
      : 15.1693 - val_mean_absolute_error: 2
      .3808
2152  Epoch 958/10000
2153   - 0s - loss: 0.8104 -
      mean_absolute_error: 0.5631 - val_loss
      : 15.1701 - val_mean_absolute_error: 2
      .3806
2154  Epoch 959/10000
2155   - 0s - loss: 0.8103 -
      mean_absolute_error: 0.5631 - val_loss
      : 15.1705 - val_mean_absolute_error: 2
      .3805
2156  Epoch 960/10000
2157   - 0s - loss: 0.8103 -
      mean_absolute_error: 0.5631 - val_loss
      : 15.1692 - val_mean_absolute_error: 2
      .3808
2158
```

2159 Epoch 00960: val_mean_absolute_error did not improve from 2.27144
2160 Epoch 961/10000
2161 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss: 15.1681 - val_mean_absolute_error: 2.3809
2162 Epoch 962/10000
2163 - 0s - loss: 0.8104 - mean_absolute_error: 0.5631 - val_loss: 15.1680 - val_mean_absolute_error: 2.3809
2164 Epoch 963/10000
2165 - 0s - loss: 0.8103 - mean_absolute_error: 0.5631 - val_loss: 15.1682 - val_mean_absolute_error: 2.3808
2166 Epoch 964/10000
2167 - 0s - loss: 0.8104 - mean_absolute_error: 0.5630 - val_loss: 15.1679 - val_mean_absolute_error: 2.3809
2168 Epoch 965/10000
2169 - 0s - loss: 0.8103 -

2169 mean_absolute_error: 0.5631 - val_loss: 15.1684 - val_mean_absolute_error: 2.3808

2170 Epoch 966/10000

2171 - 0s - loss: 0.8103 - mean_absolute_error: 0.5630 - val_loss: 15.1677 - val_mean_absolute_error: 2.3809

2172 Epoch 967/10000

2173 - 0s - loss: 0.8104 - mean_absolute_error: 0.5630 - val_loss: 15.1680 - val_mean_absolute_error: 2.3809

2174 Epoch 968/10000

2175 - 0s - loss: 0.8102 - mean_absolute_error: 0.5630 - val_loss: 15.1678 - val_mean_absolute_error: 2.3809

2176 Epoch 969/10000

2177 - 0s - loss: 0.8104 - mean_absolute_error: 0.5632 - val_loss: 15.1695 - val_mean_absolute_error: 2.3808

2178 Epoch 970/10000

2179   - 0s - loss: 0.8103 - mean_absolute_error: 0.5631 - val_loss: 15.1691 - val_mean_absolute_error: 2.3808

2180

2181 Epoch 00970: val_mean_absolute_error did not improve from 2.27144

2182 Epoch 971/10000

2183   - 0s - loss: 0.8103 - mean_absolute_error: 0.5630 - val_loss: 15.1697 - val_mean_absolute_error: 2.3808

2184 Epoch 972/10000

2185   - 0s - loss: 0.8103 - mean_absolute_error: 0.5630 - val_loss: 15.1697 - val_mean_absolute_error: 2.3807

2186 Epoch 973/10000

2187   - 0s - loss: 0.8102 - mean_absolute_error: 0.5630 - val_loss: 15.1693 - val_mean_absolute_error: 2.3808

2188 Epoch 974/10000

2189   - 0s - loss: 0.8103 -

```
2189  mean_absolute_error: 0.5631 - val_loss
      : 15.1693 - val_mean_absolute_error: 2
      .3808
2190  Epoch 975/10000
2191   - 0s - loss: 0.8103 -
      mean_absolute_error: 0.5630 - val_loss
      : 15.1687 - val_mean_absolute_error: 2
      .3809
2192  Epoch 976/10000
2193   - 0s - loss: 0.8102 -
      mean_absolute_error: 0.5631 - val_loss
      : 15.1674 - val_mean_absolute_error: 2
      .3810
2194  Epoch 977/10000
2195   - 0s - loss: 0.8102 -
      mean_absolute_error: 0.5630 - val_loss
      : 15.1678 - val_mean_absolute_error: 2
      .3810
2196  Epoch 978/10000
2197   - 0s - loss: 0.8103 -
      mean_absolute_error: 0.5630 - val_loss
      : 15.1677 - val_mean_absolute_error: 2
      .3810
2198  Epoch 979/10000
```

2199	- 0s - loss: 0.8103 - mean_absolute_error: 0.5629 - val_loss: 15.1680 - val_mean_absolute_error: 2.3810
2200	Epoch 980/10000
2201	- 0s - loss: 0.8102 - mean_absolute_error: 0.5629 - val_loss: 15.1678 - val_mean_absolute_error: 2.3811
2202	
2203	Epoch 00980: val_mean_absolute_error did not improve from 2.27144
2204	Epoch 981/10000
2205	- 0s - loss: 0.8103 - mean_absolute_error: 0.5630 - val_loss: 15.1676 - val_mean_absolute_error: 2.3811
2206	Epoch 982/10000
2207	- 0s - loss: 0.8102 - mean_absolute_error: 0.5630 - val_loss: 15.1681 - val_mean_absolute_error: 2.3811
2208	Epoch 983/10000
2209	- 0s - loss: 0.8103 -

2209 mean_absolute_error: 0.5630 - val_loss: 15.1685 - val_mean_absolute_error: 2.3810

2210 Epoch 984/10000

2211 - 0s - loss: 0.8103 - mean_absolute_error: 0.5630 - val_loss: 15.1684 - val_mean_absolute_error: 2.3810

2212 Epoch 985/10000

2213 - 0s - loss: 0.8102 - mean_absolute_error: 0.5630 - val_loss: 15.1687 - val_mean_absolute_error: 2.3810

2214 Epoch 986/10000

2215 - 0s - loss: 0.8101 - mean_absolute_error: 0.5630 - val_loss: 15.1685 - val_mean_absolute_error: 2.3810

2216 Epoch 987/10000

2217 - 0s - loss: 0.8103 - mean_absolute_error: 0.5631 - val_loss: 15.1694 - val_mean_absolute_error: 2.3809

2218 Epoch 988/10000

```
2219    - 0s - loss: 0.8103 -
mean_absolute_error: 0.5631 - val_loss
: 15.1710 - val_mean_absolute_error: 2
.3808
2220  Epoch 989/10000
2221    - 0s - loss: 0.8101 -
mean_absolute_error: 0.5630 - val_loss
: 15.1700 - val_mean_absolute_error: 2
.3810
2222  Epoch 990/10000
2223    - 0s - loss: 0.8101 -
mean_absolute_error: 0.5629 - val_loss
: 15.1697 - val_mean_absolute_error: 2
.3810
2224
2225  Epoch 00990: val_mean_absolute_error
did not improve from 2.27144
2226  Epoch 991/10000
2227    - 0s - loss: 0.8102 -
mean_absolute_error: 0.5631 - val_loss
: 15.1699 - val_mean_absolute_error: 2
.3810
2228  Epoch 992/10000
2229    - 0s - loss: 0.8102 -
```

2229 mean_absolute_error: 0.5630 - val_loss: 15.1690 - val_mean_absolute_error: 2.3811

2230 Epoch 993/10000

2231 - 0s - loss: 0.8102 - mean_absolute_error: 0.5631 - val_loss: 15.1687 - val_mean_absolute_error: 2.3812

2232 Epoch 994/10000

2233 - 0s - loss: 0.8103 - mean_absolute_error: 0.5630 - val_loss: 15.1688 - val_mean_absolute_error: 2.3812

2234 Epoch 995/10000

2235 - 0s - loss: 0.8102 - mean_absolute_error: 0.5630 - val_loss: 15.1697 - val_mean_absolute_error: 2.3811

2236 Epoch 996/10000

2237 - 0s - loss: 0.8101 - mean_absolute_error: 0.5629 - val_loss: 15.1697 - val_mean_absolute_error: 2.3811

2238 Epoch 997/10000

```
2239    - 0s - loss: 0.8102 -
        mean_absolute_error: 0.5630 - val_loss
        : 15.1710 - val_mean_absolute_error: 2
        .3810
2240   Epoch 998/10000
2241    - 0s - loss: 0.8101 -
        mean_absolute_error: 0.5630 - val_loss
        : 15.1706 - val_mean_absolute_error: 2
        .3810
2242   Epoch 999/10000
2243    - 0s - loss: 0.8102 -
        mean_absolute_error: 0.5631 - val_loss
        : 15.1692 - val_mean_absolute_error: 2
        .3812
2244   Epoch 1000/10000
2245    - 0s - loss: 0.8101 -
        mean_absolute_error: 0.5631 - val_loss
        : 15.1713 - val_mean_absolute_error: 2
        .3810

2246
2247   Epoch 01000: val_mean_absolute_error
        did not improve from 2.27144
2248   Epoch 1001/10000
2249    - 0s - loss: 0.8101 -
```

2249 mean_absolute_error: 0.5630 - val_loss: 15.1718 - val_mean_absolute_error: 2.3809

2250 Epoch 1002/10000

2251 - 0s - loss: 0.8102 - mean_absolute_error: 0.5630 - val_loss: 15.1717 - val_mean_absolute_error: 2.3809

2252 Epoch 1003/10000

2253 - 0s - loss: 0.8101 - mean_absolute_error: 0.5630 - val_loss: 15.1718 - val_mean_absolute_error: 2.3809

2254 Epoch 1004/10000

2255 - 0s - loss: 0.8102 - mean_absolute_error: 0.5629 - val_loss: 15.1719 - val_mean_absolute_error: 2.3809

2256 Epoch 1005/10000

2257 - 0s - loss: 0.8101 - mean_absolute_error: 0.5629 - val_loss: 15.1729 - val_mean_absolute_error: 2.3808

2258 Epoch 1006/10000

2259 - 0s - loss: 0.8101 - mean_absolute_error: 0.5629 - val_loss: 15.1733 - val_mean_absolute_error: 2.3808

2260 Epoch 1007/10000

2261 - 0s - loss: 0.8100 - mean_absolute_error: 0.5629 - val_loss: 15.1733 - val_mean_absolute_error: 2.3808

2262 Epoch 1008/10000

2263 - 0s - loss: 0.8101 - mean_absolute_error: 0.5629 - val_loss: 15.1736 - val_mean_absolute_error: 2.3808

2264 Epoch 1009/10000

2265 - 0s - loss: 0.8101 - mean_absolute_error: 0.5629 - val_loss: 15.1731 - val_mean_absolute_error: 2.3808

2266 Epoch 1010/10000

2267 - 0s - loss: 0.8101 - mean_absolute_error: 0.5629 - val_loss: 15.1735 - val_mean_absolute_error: 2.3807

2268

2269 Epoch 01010: val_mean_absolute_error did not improve from 2.27144

2270 Epoch 1011/10000

2271 - 0s - loss: 0.8101 - mean_absolute_error: 0.5629 - val_loss: 15.1746 - val_mean_absolute_error: 2.3806

2272 Epoch 1012/10000

2273 - 0s - loss: 0.8101 - mean_absolute_error: 0.5629 - val_loss: 15.1743 - val_mean_absolute_error: 2.3807

2274 Epoch 1013/10000

2275 - 0s - loss: 0.8101 - mean_absolute_error: 0.5628 - val_loss: 15.1743 - val_mean_absolute_error: 2.3807

2276 Epoch 1014/10000

2277 - 0s - loss: 0.8102 - mean_absolute_error: 0.5629 - val_loss: 15.1740 - val_mean_absolute_error: 2.3807

2278 Epoch 1015/10000

2279 - 0s - loss: 0.8100 - mean_absolute_error: 0.5629 - val_loss: 15.1746 - val_mean_absolute_error: 2.3807

2280 Epoch 1016/10000

2281 - 0s - loss: 0.8100 - mean_absolute_error: 0.5628 - val_loss: 15.1747 - val_mean_absolute_error: 2.3808

2282 Epoch 1017/10000

2283 - 0s - loss: 0.8101 - mean_absolute_error: 0.5627 - val_loss: 15.1741 - val_mean_absolute_error: 2.3808

2284 Epoch 1018/10000

2285 - 0s - loss: 0.8101 - mean_absolute_error: 0.5628 - val_loss: 15.1743 - val_mean_absolute_error: 2.3808

2286 Epoch 1019/10000

2287 - 0s - loss: 0.8100 - mean_absolute_error: 0.5628 - val_loss: 15.1743 - val_mean_absolute_error: 2.3808

2288 Epoch 1020/10000

2289 - 0s - loss: 0.8100 - mean_absolute_error: 0.5628 - val_loss: 15.1728 - val_mean_absolute_error: 2.3809

2290

2291 Epoch 01020: val_mean_absolute_error did not improve from 2.27144

2292 Epoch 1021/10000

2293 - 0s - loss: 0.8101 - mean_absolute_error: 0.5628 - val_loss: 15.1731 - val_mean_absolute_error: 2.3810

2294 Epoch 1022/10000

2295 - 0s - loss: 0.8100 - mean_absolute_error: 0.5629 - val_loss: 15.1739 - val_mean_absolute_error: 2.3809

2296 Epoch 1023/10000

2297 - 0s - loss: 0.8101 - mean_absolute_error: 0.5628 - val_loss: 15.1736 - val_mean_absolute_error: 2.3809

2298 Epoch 1024/10000

```
2299   - 0s - loss: 0.8100 -
       mean_absolute_error: 0.5628 - val_loss
       : 15.1740 - val_mean_absolute_error: 2
       .3809
2300   Epoch 1025/10000
2301   - 0s - loss: 0.8100 -
       mean_absolute_error: 0.5628 - val_loss
       : 15.1733 - val_mean_absolute_error: 2
       .3809
2302   Epoch 1026/10000
2303   - 0s - loss: 0.8100 -
       mean_absolute_error: 0.5628 - val_loss
       : 15.1733 - val_mean_absolute_error: 2
       .3809
2304   Epoch 1027/10000
2305   - 0s - loss: 0.8100 -
       mean_absolute_error: 0.5628 - val_loss
       : 15.1723 - val_mean_absolute_error: 2
       .3810
2306   Epoch 1028/10000
2307   - 0s - loss: 0.8099 -
       mean_absolute_error: 0.5628 - val_loss
       : 15.1727 - val_mean_absolute_error: 2
       .3809
```

```
2308  Epoch 1029/10000
2309   - 0s - loss: 0.8100 -
      mean_absolute_error: 0.5628 - val_loss
      : 15.1728 - val_mean_absolute_error: 2
      .3809
2310  Epoch 1030/10000
2311   - 0s - loss: 0.8100 -
      mean_absolute_error: 0.5628 - val_loss
      : 15.1732 - val_mean_absolute_error: 2
      .3808
2312
2313  Epoch 01030: val_mean_absolute_error
      did not improve from 2.27144
2314  Epoch 1031/10000
2315   - 0s - loss: 0.8100 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1734 - val_mean_absolute_error: 2
      .3808
2316  Epoch 1032/10000
2317   - 0s - loss: 0.8100 -
      mean_absolute_error: 0.5628 - val_loss
      : 15.1733 - val_mean_absolute_error: 2
      .3808
2318  Epoch 1033/10000
```

2319   - 0s - loss: 0.8100 - mean_absolute_error: 0.5629 - val_loss: 15.1739 - val_mean_absolute_error: 2.3807

2320   Epoch 1034/10000

2321   - 0s - loss: 0.8099 - mean_absolute_error: 0.5627 - val_loss: 15.1735 - val_mean_absolute_error: 2.3808

2322   Epoch 1035/10000

2323   - 0s - loss: 0.8101 - mean_absolute_error: 0.5629 - val_loss: 15.1729 - val_mean_absolute_error: 2.3809

2324   Epoch 1036/10000

2325   - 0s - loss: 0.8099 - mean_absolute_error: 0.5628 - val_loss: 15.1737 - val_mean_absolute_error: 2.3808

2326   Epoch 1037/10000

2327   - 0s - loss: 0.8100 - mean_absolute_error: 0.5628 - val_loss: 15.1736 - val_mean_absolute_error: 2.3808

```
2328  Epoch 1038/10000
2329   - 0s - loss: 0.8100 -
      mean_absolute_error: 0.5628 - val_loss
      : 15.1737 - val_mean_absolute_error: 2
      .3808
2330  Epoch 1039/10000
2331   - 0s - loss: 0.8100 -
      mean_absolute_error: 0.5628 - val_loss
      : 15.1722 - val_mean_absolute_error: 2
      .3809
2332  Epoch 1040/10000
2333   - 0s - loss: 0.8099 -
      mean_absolute_error: 0.5628 - val_loss
      : 15.1719 - val_mean_absolute_error: 2
      .3810
2334
2335  Epoch 01040: val_mean_absolute_error
      did not improve from 2.27144
2336  Epoch 1041/10000
2337   - 0s - loss: 0.8099 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1720 - val_mean_absolute_error: 2
      .3810
2338  Epoch 1042/10000
```

2339   - 0s - loss: 0.8099 - mean_absolute_error: 0.5628 - val_loss: 15.1717 - val_mean_absolute_error: 2.3811

2340 Epoch 1043/10000

2341   - 0s - loss: 0.8099 - mean_absolute_error: 0.5628 - val_loss: 15.1733 - val_mean_absolute_error: 2.3809

2342 Epoch 1044/10000

2343   - 0s - loss: 0.8099 - mean_absolute_error: 0.5627 - val_loss: 15.1726 - val_mean_absolute_error: 2.3810

2344 Epoch 1045/10000

2345   - 0s - loss: 0.8099 - mean_absolute_error: 0.5627 - val_loss: 15.1726 - val_mean_absolute_error: 2.3810

2346 Epoch 1046/10000

2347   - 0s - loss: 0.8099 - mean_absolute_error: 0.5628 - val_loss: 15.1727 - val_mean_absolute_error: 2.3810

2348 Epoch 1047/10000

2349 - 0s - loss: 0.8100 - mean_absolute_error: 0.5628 - val_loss: 15.1727 - val_mean_absolute_error: 2.3811

2350 Epoch 1048/10000

2351 - 0s - loss: 0.8099 - mean_absolute_error: 0.5627 - val_loss: 15.1712 - val_mean_absolute_error: 2.3812

2352 Epoch 1049/10000

2353 - 0s - loss: 0.8100 - mean_absolute_error: 0.5629 - val_loss: 15.1714 - val_mean_absolute_error: 2.3812

2354 Epoch 1050/10000

2355 - 0s - loss: 0.8100 - mean_absolute_error: 0.5628 - val_loss: 15.1708 - val_mean_absolute_error: 2.3812

2356

2357 Epoch 01050: val_mean_absolute_error did not improve from 2.27144

2358 Epoch 1051/10000

2359 - 0s - loss: 0.8098 - mean_absolute_error: 0.5628 - val_loss: 15.1709 - val_mean_absolute_error: 2.3812

2360 Epoch 1052/10000

2361 - 0s - loss: 0.8099 - mean_absolute_error: 0.5628 - val_loss: 15.1713 - val_mean_absolute_error: 2.3811

2362 Epoch 1053/10000

2363 - 0s - loss: 0.8099 - mean_absolute_error: 0.5627 - val_loss: 15.1716 - val_mean_absolute_error: 2.3811

2364 Epoch 1054/10000

2365 - 0s - loss: 0.8099 - mean_absolute_error: 0.5628 - val_loss: 15.1710 - val_mean_absolute_error: 2.3811

2366 Epoch 1055/10000

2367 - 0s - loss: 0.8099 - mean_absolute_error: 0.5628 - val_loss: 15.1701 - val_mean_absolute_error: 2.3812

```
2368  Epoch 1056/10000
2369   - 0s - loss: 0.8099 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1705 - val_mean_absolute_error: 2
      .3812
2370  Epoch 1057/10000
2371   - 0s - loss: 0.8099 -
      mean_absolute_error: 0.5628 - val_loss
      : 15.1705 - val_mean_absolute_error: 2
      .3812
2372  Epoch 1058/10000
2373   - 0s - loss: 0.8099 -
      mean_absolute_error: 0.5629 - val_loss
      : 15.1713 - val_mean_absolute_error: 2
      .3811
2374  Epoch 1059/10000
2375   - 0s - loss: 0.8098 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1705 - val_mean_absolute_error: 2
      .3812
2376  Epoch 1060/10000
2377   - 0s - loss: 0.8098 -
      mean_absolute_error: 0.5628 - val_loss
      : 15.1709 - val_mean_absolute_error: 2
```

```
2377  .3811
2378
2379  Epoch 01060: val_mean_absolute_error
      did not improve from 2.27144
2380  Epoch 1061/10000
2381   - 0s - loss: 0.8100 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1713 - val_mean_absolute_error: 2
      .3810
2382  Epoch 1062/10000
2383   - 0s - loss: 0.8099 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1718 - val_mean_absolute_error: 2
      .3810
2384  Epoch 1063/10000
2385   - 0s - loss: 0.8099 -
      mean_absolute_error: 0.5628 - val_loss
      : 15.1707 - val_mean_absolute_error: 2
      .3811
2386  Epoch 1064/10000
2387   - 0s - loss: 0.8097 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1718 - val_mean_absolute_error: 2
      .3810
```

2388 Epoch 1065/10000

2389 - 0s - loss: 0.8098 - mean_absolute_error: 0.5629 - val_loss: 15.1723 - val_mean_absolute_error: 2.3810

2390 Epoch 1066/10000

2391 - 0s - loss: 0.8098 - mean_absolute_error: 0.5628 - val_loss: 15.1728 - val_mean_absolute_error: 2.3809

2392 Epoch 1067/10000

2393 - 0s - loss: 0.8098 - mean_absolute_error: 0.5628 - val_loss: 15.1725 - val_mean_absolute_error: 2.3810

2394 Epoch 1068/10000

2395 - 0s - loss: 0.8097 - mean_absolute_error: 0.5628 - val_loss: 15.1732 - val_mean_absolute_error: 2.3809

2396 Epoch 1069/10000

2397 - 0s - loss: 0.8098 - mean_absolute_error: 0.5628 - val_loss: 15.1733 - val_mean_absolute_error: 2

2397 .3809

2398 Epoch 1070/10000

2399 - 0s - loss: 0.8097 - mean_absolute_error: 0.5628 - val_loss: 15.1726 - val_mean_absolute_error: 2.3810

2400

2401 Epoch 01070: val_mean_absolute_error did not improve from 2.27144

2402 Epoch 1071/10000

2403 - 0s - loss: 0.8098 - mean_absolute_error: 0.5626 - val_loss: 15.1721 - val_mean_absolute_error: 2.3811

2404 Epoch 1072/10000

2405 - 0s - loss: 0.8098 - mean_absolute_error: 0.5628 - val_loss: 15.1733 - val_mean_absolute_error: 2.3810

2406 Epoch 1073/10000

2407 - 0s - loss: 0.8096 - mean_absolute_error: 0.5627 - val_loss: 15.1735 - val_mean_absolute_error: 2.3809

2408 Epoch 1074/10000

2409 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1738 - val_mean_absolute_error: 2.3810

2410 Epoch 1075/10000

2411 - 0s - loss: 0.8098 - mean_absolute_error: 0.5628 - val_loss: 15.1741 - val_mean_absolute_error: 2.3809

2412 Epoch 1076/10000

2413 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1751 - val_mean_absolute_error: 2.3808

2414 Epoch 1077/10000

2415 - 0s - loss: 0.8096 - mean_absolute_error: 0.5627 - val_loss: 15.1753 - val_mean_absolute_error: 2.3808

2416 Epoch 1078/10000

2417 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1761 - val_mean_absolute_error: 2

2417 .3807

2418 Epoch 1079/10000

2419 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1760 - val_mean_absolute_error: 2.3808

2420 Epoch 1080/10000

2421 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1754 - val_mean_absolute_error: 2.3808

2422

2423 Epoch 01080: val_mean_absolute_error did not improve from 2.27144

2424 Epoch 1081/10000

2425 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1757 - val_mean_absolute_error: 2.3808

2426 Epoch 1082/10000

2427 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1756 - val_mean_absolute_error: 2.3808

```
2428  Epoch 1083/10000
2429   - 0s - loss: 0.8098 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1752 - val_mean_absolute_error: 2
      .3808
2430  Epoch 1084/10000
2431   - 0s - loss: 0.8097 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1753 - val_mean_absolute_error: 2
      .3808
2432  Epoch 1085/10000
2433   - 0s - loss: 0.8097 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1746 - val_mean_absolute_error: 2
      .3808
2434  Epoch 1086/10000
2435   - 0s - loss: 0.8097 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1736 - val_mean_absolute_error: 2
      .3809
2436  Epoch 1087/10000
2437   - 0s - loss: 0.8097 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1737 - val_mean_absolute_error: 2
```

2437 .3809

2438 Epoch 1088/10000

2439 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1741 - val_mean_absolute_error: 2.3809

2440 Epoch 1089/10000

2441 - 0s - loss: 0.8097 - mean_absolute_error: 0.5626 - val_loss: 15.1741 - val_mean_absolute_error: 2.3809

2442 Epoch 1090/10000

2443 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1749 - val_mean_absolute_error: 2.3808

2444

2445 Epoch 01090: val_mean_absolute_error did not improve from 2.27144

2446 Epoch 1091/10000

2447 - 0s - loss: 0.8097 - mean_absolute_error: 0.5626 - val_loss: 15.1746 - val_mean_absolute_error: 2.3808

```
2448  Epoch 1092/10000
2449   - 0s - loss: 0.8097 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1747 - val_mean_absolute_error: 2
      .3808
2450  Epoch 1093/10000
2451   - 0s - loss: 0.8096 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1748 - val_mean_absolute_error: 2
      .3809
2452  Epoch 1094/10000
2453   - 0s - loss: 0.8097 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1746 - val_mean_absolute_error: 2
      .3810
2454  Epoch 1095/10000
2455   - 0s - loss: 0.8097 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1745 - val_mean_absolute_error: 2
      .3809
2456  Epoch 1096/10000
2457   - 0s - loss: 0.8096 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1745 - val_mean_absolute_error: 2
```

2457 .3810

2458 Epoch 1097/10000

2459 - 0s - loss: 0.8096 - mean_absolute_error: 0.5626 - val_loss: 15.1745 - val_mean_absolute_error: 2.3810

2460 Epoch 1098/10000

2461 - 0s - loss: 0.8097 - mean_absolute_error: 0.5627 - val_loss: 15.1747 - val_mean_absolute_error: 2.3810

2462 Epoch 1099/10000

2463 - 0s - loss: 0.8096 - mean_absolute_error: 0.5626 - val_loss: 15.1750 - val_mean_absolute_error: 2.3810

2464 Epoch 1100/10000

2465 - 0s - loss: 0.8095 - mean_absolute_error: 0.5626 - val_loss: 15.1740 - val_mean_absolute_error: 2.3812

2466

2467 Epoch 01100: val_mean_absolute_error did not improve from 2.27144

2468 Epoch 1101/10000
2469 - 0s - loss: 0.8096 - mean_absolute_error: 0.5627 - val_loss: 15.1745 - val_mean_absolute_error: 2.3811
2470 Epoch 1102/10000
2471 - 0s - loss: 0.8096 - mean_absolute_error: 0.5626 - val_loss: 15.1745 - val_mean_absolute_error: 2.3811
2472 Epoch 1103/10000
2473 - 0s - loss: 0.8096 - mean_absolute_error: 0.5626 - val_loss: 15.1746 - val_mean_absolute_error: 2.3810
2474 Epoch 1104/10000
2475 - 0s - loss: 0.8096 - mean_absolute_error: 0.5626 - val_loss: 15.1749 - val_mean_absolute_error: 2.3810
2476 Epoch 1105/10000
2477 - 0s - loss: 0.8095 - mean_absolute_error: 0.5626 - val_loss: 15.1751 - val_mean_absolute_error: 2

```
2477  .3810
2478  Epoch 1106/10000
2479   - 0s - loss: 0.8096 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1741 - val_mean_absolute_error: 2
      .3811
2480  Epoch 1107/10000
2481   - 0s - loss: 0.8095 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1737 - val_mean_absolute_error: 2
      .3812
2482  Epoch 1108/10000
2483   - 0s - loss: 0.8096 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1740 - val_mean_absolute_error: 2
      .3812
2484  Epoch 1109/10000
2485   - 0s - loss: 0.8095 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1727 - val_mean_absolute_error: 2
      .3814
2486  Epoch 1110/10000
2487   - 0s - loss: 0.8096 -
      mean_absolute_error: 0.5627 - val_loss
```

2487 : 15.1735 - val_mean_absolute_error: 2 .3813

2488

2489 Epoch 01110: val_mean_absolute_error did not improve from 2.27144

2490 Epoch 1111/10000

2491   - 0s - loss: 0.8096 - mean_absolute_error: 0.5627 - val_loss : 15.1729 - val_mean_absolute_error: 2 .3814

2492 Epoch 1112/10000

2493   - 0s - loss: 0.8096 - mean_absolute_error: 0.5629 - val_loss : 15.1730 - val_mean_absolute_error: 2 .3814

2494 Epoch 1113/10000

2495   - 0s - loss: 0.8094 - mean_absolute_error: 0.5626 - val_loss : 15.1737 - val_mean_absolute_error: 2 .3814

2496 Epoch 1114/10000

2497   - 0s - loss: 0.8096 - mean_absolute_error: 0.5627 - val_loss : 15.1738 - val_mean_absolute_error: 2

```
2497 .3814
2498 Epoch 1115/10000
2499  - 0s - loss: 0.8095 -
mean_absolute_error: 0.5627 - val_loss
: 15.1742 - val_mean_absolute_error: 2
.3813
2500 Epoch 1116/10000
2501  - 0s - loss: 0.8096 -
mean_absolute_error: 0.5626 - val_loss
: 15.1732 - val_mean_absolute_error: 2
.3814
2502 Epoch 1117/10000
2503  - 0s - loss: 0.8095 -
mean_absolute_error: 0.5626 - val_loss
: 15.1732 - val_mean_absolute_error: 2
.3813
2504 Epoch 1118/10000
2505  - 0s - loss: 0.8095 -
mean_absolute_error: 0.5627 - val_loss
: 15.1735 - val_mean_absolute_error: 2
.3813
2506 Epoch 1119/10000
2507  - 0s - loss: 0.8095 -
mean_absolute_error: 0.5627 - val_loss
```

2507 : 15.1732 - val_mean_absolute_error: 2
.3813

2508 Epoch 1120/10000

2509 - 0s - loss: 0.8096 -
mean_absolute_error: 0.5627 - val_loss
: 15.1734 - val_mean_absolute_error: 2
.3813

2510

2511 Epoch 01120: val_mean_absolute_error
did not improve from 2.27144

2512 Epoch 1121/10000

2513 - 0s - loss: 0.8096 -
mean_absolute_error: 0.5627 - val_loss
: 15.1732 - val_mean_absolute_error: 2
.3814

2514 Epoch 1122/10000

2515 - 0s - loss: 0.8095 -
mean_absolute_error: 0.5626 - val_loss
: 15.1737 - val_mean_absolute_error: 2
.3813

2516 Epoch 1123/10000

2517 - 0s - loss: 0.8096 -
mean_absolute_error: 0.5626 - val_loss
: 15.1744 - val_mean_absolute_error: 2

2517 .3813

2518 Epoch 1124/10000

2519 - 0s - loss: 0.8096 - mean_absolute_error: 0.5626 - val_loss: 15.1741 - val_mean_absolute_error: 2.3814

2520 Epoch 1125/10000

2521 - 0s - loss: 0.8095 - mean_absolute_error: 0.5627 - val_loss: 15.1750 - val_mean_absolute_error: 2.3812

2522 Epoch 1126/10000

2523 - 0s - loss: 0.8095 - mean_absolute_error: 0.5626 - val_loss: 15.1750 - val_mean_absolute_error: 2.3812

2524 Epoch 1127/10000

2525 - 0s - loss: 0.8095 - mean_absolute_error: 0.5626 - val_loss: 15.1748 - val_mean_absolute_error: 2.3813

2526 Epoch 1128/10000

2527 - 0s - loss: 0.8095 - mean_absolute_error: 0.5627 - val_loss

```
2527  : 15.1752 - val_mean_absolute_error: 2
      .3812
2528  Epoch 1129/10000
2529   - 0s - loss: 0.8095 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1753 - val_mean_absolute_error: 2
      .3813
2530  Epoch 1130/10000
2531   - 0s - loss: 0.8095 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1756 - val_mean_absolute_error: 2
      .3813
2532
2533  Epoch 01130: val_mean_absolute_error
      did not improve from 2.27144
2534  Epoch 1131/10000
2535   - 0s - loss: 0.8095 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1758 - val_mean_absolute_error: 2
      .3812
2536  Epoch 1132/10000
2537   - 0s - loss: 0.8095 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1755 - val_mean_absolute_error: 2
```

2537 .3813

2538 Epoch 1133/10000

2539 - 0s - loss: 0.8095 - mean_absolute_error: 0.5627 - val_loss: 15.1760 - val_mean_absolute_error: 2.3812

2540 Epoch 1134/10000

2541 - 0s - loss: 0.8095 - mean_absolute_error: 0.5627 - val_loss: 15.1760 - val_mean_absolute_error: 2.3812

2542 Epoch 1135/10000

2543 - 0s - loss: 0.8095 - mean_absolute_error: 0.5626 - val_loss: 15.1760 - val_mean_absolute_error: 2.3811

2544 Epoch 1136/10000

2545 - 0s - loss: 0.8094 - mean_absolute_error: 0.5626 - val_loss: 15.1758 - val_mean_absolute_error: 2.3812

2546 Epoch 1137/10000

2547 - 0s - loss: 0.8095 - mean_absolute_error: 0.5627 - val_loss

```
2547  : 15.1750 - val_mean_absolute_error: 2
      .3813
2548  Epoch 1138/10000
2549   - 0s - loss: 0.8095 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1749 - val_mean_absolute_error: 2
      .3813
2550  Epoch 1139/10000
2551   - 0s - loss: 0.8094 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1759 - val_mean_absolute_error: 2
      .3812
2552  Epoch 1140/10000
2553   - 0s - loss: 0.8093 -
      mean_absolute_error: 0.5626 - val_loss
      : 15.1757 - val_mean_absolute_error: 2
      .3812

2554
2555  Epoch 01140: val_mean_absolute_error
      did not improve from 2.27144
2556  Epoch 1141/10000
2557   - 0s - loss: 0.8093 -
      mean_absolute_error: 0.5627 - val_loss
      : 15.1746 - val_mean_absolute_error: 2
```

2557 .3814

2558 Epoch 1142/10000

2559 - 0s - loss: 0.8095 - mean_absolute_error: 0.5626 - val_loss: 15.1733 - val_mean_absolute_error: 2.3815

2560 Epoch 1143/10000

2561 - 0s - loss: 0.8094 - mean_absolute_error: 0.5626 - val_loss: 15.1739 - val_mean_absolute_error: 2.3815

2562 Epoch 1144/10000

2563 - 0s - loss: 0.8094 - mean_absolute_error: 0.5626 - val_loss: 15.1745 - val_mean_absolute_error: 2.3814

2564 Epoch 1145/10000

2565 - 0s - loss: 0.8094 - mean_absolute_error: 0.5627 - val_loss: 15.1744 - val_mean_absolute_error: 2.3814

2566 Epoch 1146/10000

2567 - 0s - loss: 0.8093 - mean_absolute_error: 0.5627 - val_loss

```
2567 : 15.1751 - val_mean_absolute_error: 2
     .3813
2568 Epoch 1147/10000
2569  - 0s - loss: 0.8094 -
     mean_absolute_error: 0.5626 - val_loss
     : 15.1747 - val_mean_absolute_error: 2
     .3814
2570 Epoch 1148/10000
2571  - 0s - loss: 0.8095 -
     mean_absolute_error: 0.5627 - val_loss
     : 15.1746 - val_mean_absolute_error: 2
     .3814
2572 Epoch 1149/10000
2573  - 0s - loss: 0.8093 -
     mean_absolute_error: 0.5626 - val_loss
     : 15.1744 - val_mean_absolute_error: 2
     .3814
2574 Epoch 1150/10000
2575  - 0s - loss: 0.8093 -
     mean_absolute_error: 0.5626 - val_loss
     : 15.1749 - val_mean_absolute_error: 2
     .3813
2576
2577 Epoch 01150: val_mean_absolute_error
```

2577 did not improve from 2.27144

2578 Epoch 1151/10000

2579 - 0s - loss: 0.8094 - mean_absolute_error: 0.5626 - val_loss: 15.1752 - val_mean_absolute_error: 2.3813

2580 Epoch 1152/10000

2581 - 0s - loss: 0.8094 - mean_absolute_error: 0.5625 - val_loss: 15.1754 - val_mean_absolute_error: 2.3813

2582 Epoch 1153/10000

2583 - 0s - loss: 0.8093 - mean_absolute_error: 0.5625 - val_loss: 15.1754 - val_mean_absolute_error: 2.3813

2584 Epoch 1154/10000

2585 - 0s - loss: 0.8095 - mean_absolute_error: 0.5627 - val_loss: 15.1750 - val_mean_absolute_error: 2.3814

2586 Epoch 1155/10000

2587 - 0s - loss: 0.8093 - mean_absolute_error: 0.5625 - val_loss

2587 : 15.1758 - val_mean_absolute_error: 2
.3812

2588 Epoch 1156/10000

2589 - 0s - loss: 0.8093 -
mean_absolute_error: 0.5625 - val_loss
: 15.1766 - val_mean_absolute_error: 2
.3812

2590 Epoch 1157/10000

2591 - 0s - loss: 0.8093 -
mean_absolute_error: 0.5625 - val_loss
: 15.1761 - val_mean_absolute_error: 2
.3812

2592 Epoch 1158/10000

2593 - 0s - loss: 0.8093 -
mean_absolute_error: 0.5625 - val_loss
: 15.1763 - val_mean_absolute_error: 2
.3812

2594 Epoch 1159/10000

2595 - 0s - loss: 0.8093 -
mean_absolute_error: 0.5624 - val_loss
: 15.1768 - val_mean_absolute_error: 2
.3812

2596 Epoch 1160/10000

2597 - 0s - loss: 0.8094 -

2597 mean_absolute_error: 0.5625 - val_loss: 15.1762 - val_mean_absolute_error: 2.3813

2598

2599 Epoch 01160: val_mean_absolute_error did not improve from 2.27144

2600 Epoch 1161/10000

2601 - 0s - loss: 0.8093 - mean_absolute_error: 0.5625 - val_loss: 15.1752 - val_mean_absolute_error: 2.3814

2602 Epoch 1162/10000

2603 - 0s - loss: 0.8093 - mean_absolute_error: 0.5625 - val_loss: 15.1761 - val_mean_absolute_error: 2.3813

2604 Epoch 1163/10000

2605 - 0s - loss: 0.8094 - mean_absolute_error: 0.5624 - val_loss: 15.1764 - val_mean_absolute_error: 2.3812

2606 Epoch 1164/10000

2607 - 0s - loss: 0.8094 - mean_absolute_error: 0.5625 - val_loss

```
2607  : 15.1757 - val_mean_absolute_error: 2
      .3812
2608  Epoch 1165/10000
2609   - 0s - loss: 0.8093 -
      mean_absolute_error: 0.5625 - val_loss
      : 15.1756 - val_mean_absolute_error: 2
      .3813
2610  Epoch 1166/10000
2611   - 0s - loss: 0.8093 -
      mean_absolute_error: 0.5625 - val_loss
      : 15.1755 - val_mean_absolute_error: 2
      .3812
2612  Epoch 1167/10000
2613   - 0s - loss: 0.8093 -
      mean_absolute_error: 0.5625 - val_loss
      : 15.1744 - val_mean_absolute_error: 2
      .3814
2614  Epoch 1168/10000
2615   - 0s - loss: 0.8093 -
      mean_absolute_error: 0.5625 - val_loss
      : 15.1747 - val_mean_absolute_error: 2
      .3813
2616  Epoch 1169/10000
2617   - 0s - loss: 0.8093 -
```

2617   mean_absolute_error: 0.5624 - val_loss: 15.1750 - val_mean_absolute_error: 2.3813

2618   Epoch 1170/10000

2619   - 0s - loss: 0.8094 - mean_absolute_error: 0.5626 - val_loss: 15.1755 - val_mean_absolute_error: 2.3812

2620

2621   Epoch 01170: val_mean_absolute_error did not improve from 2.27144

2622   Epoch 1171/10000

2623   - 0s - loss: 0.8092 - mean_absolute_error: 0.5624 - val_loss: 15.1749 - val_mean_absolute_error: 2.3813

2624   Epoch 1172/10000

2625   - 0s - loss: 0.8092 - mean_absolute_error: 0.5626 - val_loss: 15.1751 - val_mean_absolute_error: 2.3813

2626   Epoch 1173/10000

2627   - 0s - loss: 0.8093 - mean_absolute_error: 0.5625 - val_loss

2627 : 15.1748 - val_mean_absolute_error: 2
.3813

2628 Epoch 1174/10000

2629 - 0s - loss: 0.8093 -
mean_absolute_error: 0.5624 - val_loss
: 15.1763 - val_mean_absolute_error: 2
.3811

2630 Epoch 1175/10000

2631 - 0s - loss: 0.8092 -
mean_absolute_error: 0.5625 - val_loss
: 15.1762 - val_mean_absolute_error: 2
.3812

2632 Epoch 1176/10000

2633 - 0s - loss: 0.8093 -
mean_absolute_error: 0.5625 - val_loss
: 15.1761 - val_mean_absolute_error: 2
.3812

2634 Epoch 1177/10000

2635 - 0s - loss: 0.8093 -
mean_absolute_error: 0.5625 - val_loss
: 15.1764 - val_mean_absolute_error: 2
.3811

2636 Epoch 1178/10000

2637 - 0s - loss: 0.8092 -

2637 mean_absolute_error: 0.5625 - val_loss: 15.1765 - val_mean_absolute_error: 2.3811

2638 Epoch 1179/10000

2639 - 0s - loss: 0.8092 - mean_absolute_error: 0.5625 - val_loss: 15.1764 - val_mean_absolute_error: 2.3811

2640 Epoch 1180/10000

2641 - 0s - loss: 0.8091 - mean_absolute_error: 0.5625 - val_loss: 15.1752 - val_mean_absolute_error: 2.3813

2642

2643 Epoch 01180: val_mean_absolute_error did not improve from 2.27144

2644 Epoch 1181/10000

2645 - 0s - loss: 0.8092 - mean_absolute_error: 0.5625 - val_loss: 15.1762 - val_mean_absolute_error: 2.3812

2646 Epoch 1182/10000

2647 - 0s - loss: 0.8092 - mean_absolute_error: 0.5624 - val_loss

2647 : 15.1765 - val_mean_absolute_error: 2.3812

2648 Epoch 1183/10000

2649 - 0s - loss: 0.8093 - mean_absolute_error: 0.5626 - val_loss: 15.1764 - val_mean_absolute_error: 2.3812

2650 Epoch 1184/10000

2651 - 0s - loss: 0.8092 - mean_absolute_error: 0.5625 - val_loss: 15.1749 - val_mean_absolute_error: 2.3813

2652 Epoch 1185/10000

2653 - 0s - loss: 0.8092 - mean_absolute_error: 0.5625 - val_loss: 15.1753 - val_mean_absolute_error: 2.3814

2654 Epoch 1186/10000

2655 - 0s - loss: 0.8092 - mean_absolute_error: 0.5626 - val_loss: 15.1761 - val_mean_absolute_error: 2.3813

2656 Epoch 1187/10000

2657 - 0s - loss: 0.8091 -

2657 mean_absolute_error: 0.5625 - val_loss: 15.1766 - val_mean_absolute_error: 2.3813

2658 Epoch 1188/10000

2659 - 0s - loss: 0.8092 - mean_absolute_error: 0.5624 - val_loss: 15.1766 - val_mean_absolute_error: 2.3812

2660 Epoch 1189/10000

2661 - 0s - loss: 0.8091 - mean_absolute_error: 0.5625 - val_loss: 15.1764 - val_mean_absolute_error: 2.3812

2662 Epoch 1190/10000

2663 - 0s - loss: 0.8092 - mean_absolute_error: 0.5625 - val_loss: 15.1758 - val_mean_absolute_error: 2.3813

2664

2665 Epoch 01190: val_mean_absolute_error did not improve from 2.27144

2666 Epoch 1191/10000

2667 - 0s - loss: 0.8092 - mean_absolute_error: 0.5624 - val_loss

```
2667  : 15.1767 - val_mean_absolute_error: 2
      .3812
2668  Epoch 1192/10000
2669   - 0s - loss: 0.8092 -
      mean_absolute_error: 0.5623 - val_loss
      : 15.1773 - val_mean_absolute_error: 2
      .3811
2670  Epoch 1193/10000
2671   - 0s - loss: 0.8091 -
      mean_absolute_error: 0.5624 - val_loss
      : 15.1774 - val_mean_absolute_error: 2
      .3811
2672  Epoch 1194/10000
2673   - 0s - loss: 0.8091 -
      mean_absolute_error: 0.5623 - val_loss
      : 15.1770 - val_mean_absolute_error: 2
      .3812
2674  Epoch 1195/10000
2675   - 0s - loss: 0.8091 -
      mean_absolute_error: 0.5624 - val_loss
      : 15.1786 - val_mean_absolute_error: 2
      .3811
2676  Epoch 1196/10000
2677   - 0s - loss: 0.8092 -
```

2677 mean_absolute_error: 0.5625 - val_loss: 15.1786 - val_mean_absolute_error: 2.3811

2678 Epoch 1197/10000

2679 - 0s - loss: 0.8091 - mean_absolute_error: 0.5624 - val_loss: 15.1804 - val_mean_absolute_error: 2.3810

2680 Epoch 1198/10000

2681 - 0s - loss: 0.8091 - mean_absolute_error: 0.5624 - val_loss: 15.1793 - val_mean_absolute_error: 2.3811

2682 Epoch 1199/10000

2683 - 0s - loss: 0.8092 - mean_absolute_error: 0.5624 - val_loss: 15.1804 - val_mean_absolute_error: 2.3810

2684 Epoch 1200/10000

2685 - 0s - loss: 0.8090 - mean_absolute_error: 0.5625 - val_loss: 15.1801 - val_mean_absolute_error: 2.3811

2686

2687 Epoch 01200: val_mean_absolute_error did not improve from 2.27144

2688 Epoch 1201/10000

2689 - 0s - loss: 0.8092 - mean_absolute_error: 0.5624 - val_loss: 15.1792 - val_mean_absolute_error: 2.3812

2690 Epoch 1202/10000

2691 - 0s - loss: 0.8091 - mean_absolute_error: 0.5624 - val_loss: 15.1793 - val_mean_absolute_error: 2.3811

2692 Epoch 1203/10000

2693 - 0s - loss: 0.8091 - mean_absolute_error: 0.5624 - val_loss: 15.1793 - val_mean_absolute_error: 2.3811

2694 Epoch 1204/10000

2695 - 0s - loss: 0.8091 - mean_absolute_error: 0.5624 - val_loss: 15.1797 - val_mean_absolute_error: 2.3812

2696 Epoch 1205/10000

2697 - 0s - loss: 0.8091 -

2697 mean_absolute_error: 0.5623 - val_loss: 15.1790 - val_mean_absolute_error: 2.3813

2698 Epoch 1206/10000

2699 - 0s - loss: 0.8091 - mean_absolute_error: 0.5625 - val_loss: 15.1802 - val_mean_absolute_error: 2.3812

2700 Epoch 1207/10000

2701 - 0s - loss: 0.8089 - mean_absolute_error: 0.5624 - val_loss: 15.1796 - val_mean_absolute_error: 2.3812

2702 Epoch 1208/10000

2703 - 0s - loss: 0.8091 - mean_absolute_error: 0.5624 - val_loss: 15.1800 - val_mean_absolute_error: 2.3812

2704 Epoch 1209/10000

2705 - 0s - loss: 0.8091 - mean_absolute_error: 0.5623 - val_loss: 15.1794 - val_mean_absolute_error: 2.3813

2706 Epoch 1210/10000

2707 - 0s - loss: 0.8091 - mean_absolute_error: 0.5623 - val_loss: 15.1805 - val_mean_absolute_error: 2.3812

2708

2709 Epoch 01210: val_mean_absolute_error did not improve from 2.27144

2710 Epoch 1211/10000

2711 - 0s - loss: 0.8091 - mean_absolute_error: 0.5625 - val_loss: 15.1808 - val_mean_absolute_error: 2.3812

2712 Epoch 1212/10000

2713 - 0s - loss: 0.8091 - mean_absolute_error: 0.5624 - val_loss: 15.1810 - val_mean_absolute_error: 2.3812

2714 Epoch 1213/10000

2715 - 0s - loss: 0.8090 - mean_absolute_error: 0.5624 - val_loss: 15.1805 - val_mean_absolute_error: 2.3813

2716 Epoch 1214/10000

2717 - 0s - loss: 0.8090 -

```
2717  mean_absolute_error: 0.5624 - val_loss
      : 15.1801 - val_mean_absolute_error: 2
      .3812
2718  Epoch 1215/10000
2719   - 0s - loss: 0.8091 -
      mean_absolute_error: 0.5624 - val_loss
      : 15.1798 - val_mean_absolute_error: 2
      .3812
2720  Epoch 1216/10000
2721   - 0s - loss: 0.8090 -
      mean_absolute_error: 0.5624 - val_loss
      : 15.1799 - val_mean_absolute_error: 2
      .3812
2722  Epoch 1217/10000
2723   - 0s - loss: 0.8091 -
      mean_absolute_error: 0.5624 - val_loss
      : 15.1804 - val_mean_absolute_error: 2
      .3812
2724  Epoch 1218/10000
2725   - 0s - loss: 0.8092 -
      mean_absolute_error: 0.5624 - val_loss
      : 15.1793 - val_mean_absolute_error: 2
      .3813
2726  Epoch 1219/10000
```

2727   - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1791 - val_mean_absolute_error: 2.3813

2728   Epoch 1220/10000

2729   - 0s - loss: 0.8090 - mean_absolute_error: 0.5624 - val_loss: 15.1794 - val_mean_absolute_error: 2.3813

2730

2731   Epoch 01220: val_mean_absolute_error did not improve from 2.27144

2732   Epoch 1221/10000

2733   - 0s - loss: 0.8092 - mean_absolute_error: 0.5625 - val_loss: 15.1779 - val_mean_absolute_error: 2.3814

2734   Epoch 1222/10000

2735   - 0s - loss: 0.8091 - mean_absolute_error: 0.5624 - val_loss: 15.1785 - val_mean_absolute_error: 2.3814

2736   Epoch 1223/10000

2737   - 0s - loss: 0.8091 -

```
2737  mean_absolute_error: 0.5623 - val_loss
      : 15.1783 - val_mean_absolute_error: 2
      .3814
2738  Epoch 1224/10000
2739   - 0s - loss: 0.8090 -
      mean_absolute_error: 0.5623 - val_loss
      : 15.1786 - val_mean_absolute_error: 2
      .3814
2740  Epoch 1225/10000
2741   - 0s - loss: 0.8091 -
      mean_absolute_error: 0.5623 - val_loss
      : 15.1784 - val_mean_absolute_error: 2
      .3814
2742  Epoch 1226/10000
2743   - 0s - loss: 0.8090 -
      mean_absolute_error: 0.5623 - val_loss
      : 15.1779 - val_mean_absolute_error: 2
      .3814
2744  Epoch 1227/10000
2745   - 0s - loss: 0.8090 -
      mean_absolute_error: 0.5623 - val_loss
      : 15.1783 - val_mean_absolute_error: 2
      .3814
2746  Epoch 1228/10000
```

2747 - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1789 - val_mean_absolute_error: 2.3814

2748 Epoch 1229/10000

2749 - 0s - loss: 0.8090 - mean_absolute_error: 0.5623 - val_loss: 15.1799 - val_mean_absolute_error: 2.3812

2750 Epoch 1230/10000

2751 - 0s - loss: 0.8090 - mean_absolute_error: 0.5623 - val_loss: 15.1791 - val_mean_absolute_error: 2.3813

2752

2753 Epoch 01230: val_mean_absolute_error did not improve from 2.27144

2754 Epoch 1231/10000

2755 - 0s - loss: 0.8090 - mean_absolute_error: 0.5623 - val_loss: 15.1790 - val_mean_absolute_error: 2.3813

2756 Epoch 1232/10000

2757 - 0s - loss: 0.8089 -

2757 mean_absolute_error: 0.5623 - val_loss: 15.1785 - val_mean_absolute_error: 2.3814

2758 Epoch 1233/10000

2759 - 0s - loss: 0.8090 - mean_absolute_error: 0.5624 - val_loss: 15.1787 - val_mean_absolute_error: 2.3814

2760 Epoch 1234/10000

2761 - 0s - loss: 0.8090 - mean_absolute_error: 0.5624 - val_loss: 15.1786 - val_mean_absolute_error: 2.3814

2762 Epoch 1235/10000

2763 - 0s - loss: 0.8090 - mean_absolute_error: 0.5624 - val_loss: 15.1797 - val_mean_absolute_error: 2.3813

2764 Epoch 1236/10000

2765 - 0s - loss: 0.8088 - mean_absolute_error: 0.5622 - val_loss: 15.1794 - val_mean_absolute_error: 2.3814

2766 Epoch 1237/10000

2767 - 0s - loss: 0.8090 - mean_absolute_error: 0.5623 - val_loss: 15.1796 - val_mean_absolute_error: 2.3814

2768 Epoch 1238/10000

2769 - 0s - loss: 0.8089 - mean_absolute_error: 0.5624 - val_loss: 15.1785 - val_mean_absolute_error: 2.3815

2770 Epoch 1239/10000

2771 - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1784 - val_mean_absolute_error: 2.3816

2772 Epoch 1240/10000

2773 - 0s - loss: 0.8089 - mean_absolute_error: 0.5622 - val_loss: 15.1781 - val_mean_absolute_error: 2.3816

2774

2775 Epoch 01240: val_mean_absolute_error did not improve from 2.27144

2776 Epoch 1241/10000

2777 - 0s - loss: 0.8089 -

2777 mean_absolute_error: 0.5624 - val_loss: 15.1784 - val_mean_absolute_error: 2.3816

2778 Epoch 1242/10000

2779 - 0s - loss: 0.8089 - mean_absolute_error: 0.5624 - val_loss: 15.1789 - val_mean_absolute_error: 2.3815

2780 Epoch 1243/10000

2781 - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1780 - val_mean_absolute_error: 2.3816

2782 Epoch 1244/10000

2783 - 0s - loss: 0.8089 - mean_absolute_error: 0.5624 - val_loss: 15.1783 - val_mean_absolute_error: 2.3815

2784 Epoch 1245/10000

2785 - 0s - loss: 0.8090 - mean_absolute_error: 0.5623 - val_loss: 15.1785 - val_mean_absolute_error: 2.3815

2786 Epoch 1246/10000

2787 - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1779 - val_mean_absolute_error: 2.3816

2788 Epoch 1247/10000

2789 - 0s - loss: 0.8089 - mean_absolute_error: 0.5624 - val_loss: 15.1789 - val_mean_absolute_error: 2.3815

2790 Epoch 1248/10000

2791 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1787 - val_mean_absolute_error: 2.3815

2792 Epoch 1249/10000

2793 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1789 - val_mean_absolute_error: 2.3815

2794 Epoch 1250/10000

2795 - 0s - loss: 0.8089 - mean_absolute_error: 0.5622 - val_loss: 15.1794 - val_mean_absolute_error: 2.3815

2796

2797 Epoch 01250: val_mean_absolute_error did not improve from 2.27144

2798 Epoch 1251/10000

2799 - 0s - loss: 0.8090 - mean_absolute_error: 0.5623 - val_loss: 15.1794 - val_mean_absolute_error: 2.3815

2800 Epoch 1252/10000

2801 - 0s - loss: 0.8089 - mean_absolute_error: 0.5622 - val_loss: 15.1787 - val_mean_absolute_error: 2.3816

2802 Epoch 1253/10000

2803 - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1788 - val_mean_absolute_error: 2.3816

2804 Epoch 1254/10000

2805 - 0s - loss: 0.8089 - mean_absolute_error: 0.5622 - val_loss: 15.1798 - val_mean_absolute_error: 2.3815

2806 Epoch 1255/10000

2807 - 0s - loss: 0.8089 - mean_absolute_error: 0.5622 - val_loss: 15.1800 - val_mean_absolute_error: 2.3815

2808 Epoch 1256/10000

2809 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1795 - val_mean_absolute_error: 2.3816

2810 Epoch 1257/10000

2811 - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1795 - val_mean_absolute_error: 2.3816

2812 Epoch 1258/10000

2813 - 0s - loss: 0.8087 - mean_absolute_error: 0.5622 - val_loss: 15.1792 - val_mean_absolute_error: 2.3817

2814 Epoch 1259/10000

2815 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1799 - val_mean_absolute_error: 2.3815

2816 Epoch 1260/10000

2817 - 0s - loss: 0.8089 - mean_absolute_error: 0.5624 - val_loss: 15.1797 - val_mean_absolute_error: 2.3815

2818

2819 Epoch 01260: val_mean_absolute_error did not improve from 2.27144

2820 Epoch 1261/10000

2821 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1797 - val_mean_absolute_error: 2.3815

2822 Epoch 1262/10000

2823 - 0s - loss: 0.8088 - mean_absolute_error: 0.5622 - val_loss: 15.1804 - val_mean_absolute_error: 2.3814

2824 Epoch 1263/10000

2825 - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1803 - val_mean_absolute_error: 2.3813

2826 Epoch 1264/10000

2827 - 0s - loss: 0.8088 - mean_absolute_error: 0.5622 - val_loss: 15.1810 - val_mean_absolute_error: 2.3812

2828 Epoch 1265/10000

2829 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1800 - val_mean_absolute_error: 2.3814

2830 Epoch 1266/10000

2831 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1804 - val_mean_absolute_error: 2.3813

2832 Epoch 1267/10000

2833 - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1808 - val_mean_absolute_error: 2.3813

2834 Epoch 1268/10000

2835 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1807 - val_mean_absolute_error: 2.3812

2836 Epoch 1269/10000

2837 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1806 - val_mean_absolute_error: 2.3813

2838 Epoch 1270/10000

2839 - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1820 - val_mean_absolute_error: 2.3811

2840

2841 Epoch 01270: val_mean_absolute_error did not improve from 2.27144

2842 Epoch 1271/10000

2843 - 0s - loss: 0.8087 - mean_absolute_error: 0.5622 - val_loss: 15.1815 - val_mean_absolute_error: 2.3811

2844 Epoch 1272/10000

2845 - 0s - loss: 0.8088 - mean_absolute_error: 0.5622 - val_loss: 15.1813 - val_mean_absolute_error: 2.3812

2846 Epoch 1273/10000

2847   - 0s - loss: 0.8087 - mean_absolute_error: 0.5623 - val_loss: 15.1822 - val_mean_absolute_error: 2.3810

2848 Epoch 1274/10000

2849   - 0s - loss: 0.8088 - mean_absolute_error: 0.5623 - val_loss: 15.1825 - val_mean_absolute_error: 2.3810

2850 Epoch 1275/10000

2851   - 0s - loss: 0.8087 - mean_absolute_error: 0.5623 - val_loss: 15.1825 - val_mean_absolute_error: 2.3810

2852 Epoch 1276/10000

2853   - 0s - loss: 0.8087 - mean_absolute_error: 0.5621 - val_loss: 15.1811 - val_mean_absolute_error: 2.3812

2854 Epoch 1277/10000

2855   - 0s - loss: 0.8088 - mean_absolute_error: 0.5622 - val_loss: 15.1808 - val_mean_absolute_error: 2.3812

2856 Epoch 1278/10000

2857 - 0s - loss: 0.8087 - mean_absolute_error: 0.5622 - val_loss: 15.1809 - val_mean_absolute_error: 2.3812

2858 Epoch 1279/10000

2859 - 0s - loss: 0.8089 - mean_absolute_error: 0.5623 - val_loss: 15.1799 - val_mean_absolute_error: 2.3814

2860 Epoch 1280/10000

2861 - 0s - loss: 0.8086 - mean_absolute_error: 0.5623 - val_loss: 15.1807 - val_mean_absolute_error: 2.3814

2862

2863 Epoch 01280: val_mean_absolute_error did not improve from 2.27144

2864 Epoch 1281/10000

2865 - 0s - loss: 0.8087 - mean_absolute_error: 0.5623 - val_loss: 15.1810 - val_mean_absolute_error: 2.3814

2866 Epoch 1282/10000

```
2867    - 0s - loss: 0.8088 -
        mean_absolute_error: 0.5624 - val_loss
        : 15.1801 - val_mean_absolute_error: 2
        .3814
2868    Epoch 1283/10000
2869    - 0s - loss: 0.8088 -
        mean_absolute_error: 0.5623 - val_loss
        : 15.1803 - val_mean_absolute_error: 2
        .3814
2870    Epoch 1284/10000
2871    - 0s - loss: 0.8087 -
        mean_absolute_error: 0.5623 - val_loss
        : 15.1806 - val_mean_absolute_error: 2
        .3813
2872    Epoch 1285/10000
2873    - 0s - loss: 0.8087 -
        mean_absolute_error: 0.5622 - val_loss
        : 15.1811 - val_mean_absolute_error: 2
        .3813
2874    Epoch 1286/10000
2875    - 0s - loss: 0.8087 -
        mean_absolute_error: 0.5623 - val_loss
        : 15.1810 - val_mean_absolute_error: 2
        .3814
```

2876 Epoch 1287/10000

2877 - 0s - loss: 0.8086 - mean_absolute_error: 0.5622 - val_loss: 15.1801 - val_mean_absolute_error: 2.3815

2878 Epoch 1288/10000

2879 - 0s - loss: 0.8087 - mean_absolute_error: 0.5622 - val_loss: 15.1810 - val_mean_absolute_error: 2.3813

2880 Epoch 1289/10000

2881 - 0s - loss: 0.8086 - mean_absolute_error: 0.5623 - val_loss: 15.1817 - val_mean_absolute_error: 2.3812

2882 Epoch 1290/10000

2883 - 0s - loss: 0.8087 - mean_absolute_error: 0.5623 - val_loss: 15.1814 - val_mean_absolute_error: 2.3813

2884

2885 Epoch 01290: val_mean_absolute_error did not improve from 2.27144

2886 Epoch 1291/10000

2887 - 0s - loss: 0.8086 - mean_absolute_error: 0.5621 - val_loss: 15.1814 - val_mean_absolute_error: 2.3813

2888 Epoch 1292/10000

2889 - 0s - loss: 0.8086 - mean_absolute_error: 0.5622 - val_loss: 15.1805 - val_mean_absolute_error: 2.3815

2890 Epoch 1293/10000

2891 - 0s - loss: 0.8086 - mean_absolute_error: 0.5622 - val_loss: 15.1803 - val_mean_absolute_error: 2.3815

2892 Epoch 1294/10000

2893 - 0s - loss: 0.8086 - mean_absolute_error: 0.5622 - val_loss: 15.1812 - val_mean_absolute_error: 2.3814

2894 Epoch 1295/10000

2895 - 0s - loss: 0.8087 - mean_absolute_error: 0.5622 - val_loss: 15.1814 - val_mean_absolute_error: 2.3813

```
2896 Epoch 1296/10000
2897  - 0s - loss: 0.8086 -
mean_absolute_error: 0.5622 - val_loss
: 15.1815 - val_mean_absolute_error: 2
.3814
2898 Epoch 1297/10000
2899  - 0s - loss: 0.8087 -
mean_absolute_error: 0.5623 - val_loss
: 15.1814 - val_mean_absolute_error: 2
.3815
2900 Epoch 1298/10000
2901  - 0s - loss: 0.8087 -
mean_absolute_error: 0.5623 - val_loss
: 15.1815 - val_mean_absolute_error: 2
.3814
2902 Epoch 1299/10000
2903  - 0s - loss: 0.8086 -
mean_absolute_error: 0.5622 - val_loss
: 15.1802 - val_mean_absolute_error: 2
.3816
2904 Epoch 1300/10000
2905  - 0s - loss: 0.8087 -
mean_absolute_error: 0.5623 - val_loss
: 15.1788 - val_mean_absolute_error: 2
```

2905 .3816

2906

2907 Epoch 01300: val_mean_absolute_error did not improve from 2.27144

2908 Epoch 1301/10000

2909 - 0s - loss: 0.8085 - mean_absolute_error: 0.5623 - val_loss: 15.1796 - val_mean_absolute_error: 2.3816

2910 Epoch 1302/10000

2911 - 0s - loss: 0.8087 - mean_absolute_error: 0.5623 - val_loss: 15.1798 - val_mean_absolute_error: 2.3816

2912 Epoch 1303/10000

2913 - 0s - loss: 0.8086 - mean_absolute_error: 0.5622 - val_loss: 15.1800 - val_mean_absolute_error: 2.3816

2914 Epoch 1304/10000

2915 - 0s - loss: 0.8087 - mean_absolute_error: 0.5623 - val_loss: 15.1800 - val_mean_absolute_error: 2.3815

2916 Epoch 1305/10000

2917   - 0s - loss: 0.8086 - mean_absolute_error: 0.5623 - val_loss: 15.1808 - val_mean_absolute_error: 2.3814

2918 Epoch 1306/10000

2919   - 0s - loss: 0.8086 - mean_absolute_error: 0.5622 - val_loss: 15.1812 - val_mean_absolute_error: 2.3815

2920 Epoch 1307/10000

2921   - 0s - loss: 0.8085 - mean_absolute_error: 0.5622 - val_loss: 15.1825 - val_mean_absolute_error: 2.3814

2922 Epoch 1308/10000

2923   - 0s - loss: 0.8087 - mean_absolute_error: 0.5622 - val_loss: 15.1815 - val_mean_absolute_error: 2.3815

2924 Epoch 1309/10000

2925   - 0s - loss: 0.8086 - mean_absolute_error: 0.5621 - val_loss: 15.1820 - val_mean_absolute_error: 2

2925 .3813

2926 Epoch 1310/10000

2927 - 0s - loss: 0.8086 - mean_absolute_error: 0.5622 - val_loss: 15.1826 - val_mean_absolute_error: 2.3812

2928

2929 Epoch 01310: val_mean_absolute_error did not improve from 2.27144

2930 Epoch 1311/10000

2931 - 0s - loss: 0.8086 - mean_absolute_error: 0.5622 - val_loss: 15.1828 - val_mean_absolute_error: 2.3811

2932 Epoch 1312/10000

2933 - 0s - loss: 0.8085 - mean_absolute_error: 0.5621 - val_loss: 15.1829 - val_mean_absolute_error: 2.3811

2934 Epoch 1313/10000

2935 - 0s - loss: 0.8085 - mean_absolute_error: 0.5621 - val_loss: 15.1832 - val_mean_absolute_error: 2.3811

```
2936  Epoch 1314/10000
2937   - 0s - loss: 0.8086 -
      mean_absolute_error: 0.5622 - val_loss
      : 15.1821 - val_mean_absolute_error: 2
      .3813
2938  Epoch 1315/10000
2939   - 0s - loss: 0.8087 -
      mean_absolute_error: 0.5622 - val_loss
      : 15.1802 - val_mean_absolute_error: 2
      .3815
2940  Epoch 1316/10000
2941   - 0s - loss: 0.8085 -
      mean_absolute_error: 0.5621 - val_loss
      : 15.1809 - val_mean_absolute_error: 2
      .3815
2942  Epoch 1317/10000
2943   - 0s - loss: 0.8085 -
      mean_absolute_error: 0.5621 - val_loss
      : 15.1805 - val_mean_absolute_error: 2
      .3815
2944  Epoch 1318/10000
2945   - 0s - loss: 0.8086 -
      mean_absolute_error: 0.5621 - val_loss
      : 15.1811 - val_mean_absolute_error: 2
```

2945 .3814

2946 Epoch 1319/10000

2947 - 0s - loss: 0.8085 - mean_absolute_error: 0.5622 - val_loss: 15.1812 - val_mean_absolute_error: 2.3814

2948 Epoch 1320/10000

2949 - 0s - loss: 0.8087 - mean_absolute_error: 0.5621 - val_loss: 15.1813 - val_mean_absolute_error: 2.3814

2950

2951 Epoch 01320: val_mean_absolute_error did not improve from 2.27144

2952 Epoch 1321/10000

2953 - 0s - loss: 0.8085 - mean_absolute_error: 0.5621 - val_loss: 15.1814 - val_mean_absolute_error: 2.3814

2954 Epoch 1322/10000

2955 - 0s - loss: 0.8085 - mean_absolute_error: 0.5621 - val_loss: 15.1819 - val_mean_absolute_error: 2.3813

```
2956  Epoch 1323/10000
2957   - 0s - loss: 0.8085 -
mean_absolute_error: 0.5621 - val_loss
: 15.1816 - val_mean_absolute_error: 2
.3814
2958  Epoch 1324/10000
2959   - 0s - loss: 0.8085 -
mean_absolute_error: 0.5621 - val_loss
: 15.1813 - val_mean_absolute_error: 2
.3813
2960  Epoch 1325/10000
2961   - 0s - loss: 0.8084 -
mean_absolute_error: 0.5621 - val_loss
: 15.1817 - val_mean_absolute_error: 2
.3813
2962  Epoch 1326/10000
2963   - 0s - loss: 0.8085 -
mean_absolute_error: 0.5621 - val_loss
: 15.1809 - val_mean_absolute_error: 2
.3814
2964  Epoch 1327/10000
2965   - 0s - loss: 0.8085 -
mean_absolute_error: 0.5621 - val_loss
: 15.1824 - val_mean_absolute_error: 2
```

2965 .3813

2966 Epoch 1328/10000

2967 - 0s - loss: 0.8084 - mean_absolute_error: 0.5620 - val_loss: 15.1822 - val_mean_absolute_error: 2.3813

2968 Epoch 1329/10000

2969 - 0s - loss: 0.8085 - mean_absolute_error: 0.5620 - val_loss: 15.1833 - val_mean_absolute_error: 2.3812

2970 Epoch 1330/10000

2971 - 0s - loss: 0.8085 - mean_absolute_error: 0.5619 - val_loss: 15.1824 - val_mean_absolute_error: 2.3813

2972

2973 Epoch 01330: val_mean_absolute_error did not improve from 2.27144

2974 Epoch 1331/10000

2975 - 0s - loss: 0.8085 - mean_absolute_error: 0.5620 - val_loss: 15.1814 - val_mean_absolute_error: 2.3814

```
2976  Epoch 1332/10000
2977   - 0s - loss: 0.8084 -
mean_absolute_error: 0.5620 - val_loss
: 15.1817 - val_mean_absolute_error: 2
.3814
2978  Epoch 1333/10000
2979   - 0s - loss: 0.8084 -
mean_absolute_error: 0.5621 - val_loss
: 15.1835 - val_mean_absolute_error: 2
.3812
2980  Epoch 1334/10000
2981   - 0s - loss: 0.8084 -
mean_absolute_error: 0.5620 - val_loss
: 15.1832 - val_mean_absolute_error: 2
.3813
2982  Epoch 1335/10000
2983   - 0s - loss: 0.8085 -
mean_absolute_error: 0.5621 - val_loss
: 15.1836 - val_mean_absolute_error: 2
.3812
2984  Epoch 1336/10000
2985   - 0s - loss: 0.8086 -
mean_absolute_error: 0.5622 - val_loss
: 15.1839 - val_mean_absolute_error: 2
```

```
2985 .3813
2986 Epoch 1337/10000
2987  - 0s - loss: 0.8084 -
mean_absolute_error: 0.5620 - val_loss
: 15.1841 - val_mean_absolute_error: 2
.3813
2988 Epoch 1338/10000
2989  - 0s - loss: 0.8084 -
mean_absolute_error: 0.5620 - val_loss
: 15.1853 - val_mean_absolute_error: 2
.3811
2990 Epoch 1339/10000
2991  - 0s - loss: 0.8084 -
mean_absolute_error: 0.5620 - val_loss
: 15.1853 - val_mean_absolute_error: 2
.3811
2992 Epoch 1340/10000
2993  - 0s - loss: 0.8085 -
mean_absolute_error: 0.5621 - val_loss
: 15.1847 - val_mean_absolute_error: 2
.3812
2994
2995 Epoch 01340: val_mean_absolute_error
did not improve from 2.27144
```

```
2996  Epoch 1341/10000
2997   - 0s - loss: 0.8085 -
      mean_absolute_error: 0.5621 - val_loss
      : 15.1850 - val_mean_absolute_error: 2
      .3812
2998  Epoch 1342/10000
2999   - 0s - loss: 0.8084 -
      mean_absolute_error: 0.5620 - val_loss
      : 15.1859 - val_mean_absolute_error: 2
      .3811
3000  Epoch 1343/10000
3001   - 0s - loss: 0.8084 -
      mean_absolute_error: 0.5620 - val_loss
      : 15.1857 - val_mean_absolute_error: 2
      .3812
3002  Epoch 1344/10000
3003   - 0s - loss: 0.8084 -
      mean_absolute_error: 0.5620 - val_loss
      : 15.1873 - val_mean_absolute_error: 2
      .3810
3004  Epoch 1345/10000
3005   - 0s - loss: 0.8084 -
      mean_absolute_error: 0.5621 - val_loss
      : 15.1868 - val_mean_absolute_error: 2
```

3005 .3811

3006 Epoch 1346/10000

3007 - 0s - loss: 0.8083 - mean_absolute_error: 0.5620 - val_loss: 15.1862 - val_mean_absolute_error: 2.3812

3008 Epoch 1347/10000

3009 - 0s - loss: 0.8083 - mean_absolute_error: 0.5621 - val_loss: 15.1856 - val_mean_absolute_error: 2.3812

3010 Epoch 1348/10000

3011 - 0s - loss: 0.8084 - mean_absolute_error: 0.5621 - val_loss: 15.1854 - val_mean_absolute_error: 2.3812

3012 Epoch 1349/10000

3013 - 0s - loss: 0.8084 - mean_absolute_error: 0.5621 - val_loss: 15.1856 - val_mean_absolute_error: 2.3813

3014 Epoch 1350/10000

3015 - 0s - loss: 0.8084 - mean_absolute_error: 0.5621 - val_loss

3015 : 15.1856 - val_mean_absolute_error: 2
.3813

3016

3017 Epoch 01350: val_mean_absolute_error
did not improve from 2.27144

3018 Epoch 1351/10000

3019 - 0s - loss: 0.8084 -
mean_absolute_error: 0.5621 - val_loss
: 15.1847 - val_mean_absolute_error: 2
.3814

3020 Epoch 1352/10000

3021 - 0s - loss: 0.8083 -
mean_absolute_error: 0.5621 - val_loss
: 15.1853 - val_mean_absolute_error: 2
.3813

3022 Epoch 1353/10000

3023 - 0s - loss: 0.8084 -
mean_absolute_error: 0.5620 - val_loss
: 15.1857 - val_mean_absolute_error: 2
.3812

3024 Epoch 1354/10000

3025 - 0s - loss: 0.8083 -
mean_absolute_error: 0.5620 - val_loss
: 15.1861 - val_mean_absolute_error: 2

3025 .3811

3026 Epoch 1355/10000

3027 - 0s - loss: 0.8084 - mean_absolute_error: 0.5620 - val_loss: 15.1865 - val_mean_absolute_error: 2.3811

3028 Epoch 1356/10000

3029 - 0s - loss: 0.8084 - mean_absolute_error: 0.5621 - val_loss: 15.1865 - val_mean_absolute_error: 2.3810

3030 Epoch 1357/10000

3031 - 0s - loss: 0.8084 - mean_absolute_error: 0.5621 - val_loss: 15.1858 - val_mean_absolute_error: 2.3811

3032 Epoch 1358/10000

3033 - 0s - loss: 0.8084 - mean_absolute_error: 0.5620 - val_loss: 15.1860 - val_mean_absolute_error: 2.3811

3034 Epoch 1359/10000

3035 - 0s - loss: 0.8084 - mean_absolute_error: 0.5620 - val_loss

3035 : 15.1871 - val_mean_absolute_error: 2
.3810

3036 Epoch 1360/10000

3037 - 0s - loss: 0.8082 -
mean_absolute_error: 0.5619 - val_loss
: 15.1870 - val_mean_absolute_error: 2
.3810

3038

3039 Epoch 01360: val_mean_absolute_error
did not improve from 2.27144

3040 Epoch 1361/10000

3041 - 0s - loss: 0.8084 -
mean_absolute_error: 0.5619 - val_loss
: 15.1873 - val_mean_absolute_error: 2
.3810

3042 Epoch 1362/10000

3043 - 0s - loss: 0.8082 -
mean_absolute_error: 0.5619 - val_loss
: 15.1872 - val_mean_absolute_error: 2
.3809

3044 Epoch 1363/10000

3045 - 0s - loss: 0.8083 -
mean_absolute_error: 0.5619 - val_loss
: 15.1871 - val_mean_absolute_error: 2

```
3045  .3809
3046  Epoch 1364/10000
3047   - 0s - loss: 0.8083 -
      mean_absolute_error: 0.5619 - val_loss
      : 15.1870 - val_mean_absolute_error: 2
      .3809
3048  Epoch 01364: early stopping
3049  history.history.keys =  ['
      val_mean_absolute_error', 'loss', 'lr
      ', 'mean_absolute_error', 'val_loss']
3050  history.history =  {'
      val_mean_absolute_error': [20.
      33816363487144, 16.373665703667534,
      11.555089950561523, 7.8862130200421365
      , 6.196528658454801, 5.
      2819504208034935, 4.65755182431068, 4.
      219557703277211, 3.9858393021571783, 3
      .9968490365110796, 3.531689679181134,
      3.4762071444664473, 3.424370447794596
      , 3.1773756992669755, 3.
      031151642034083, 2.947956297132704, 2.
      8303364647759333, 3.1110141659960333,
      2.8262430826822915, 2.836783515082465
      , 2.7280648313922646, 2.
```

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