

# 1-dimensional (Uni-variate) input functions

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**Note:** Generate multiple sets of training data adding a gaussian noise with 0 mean.

## 1 Function 1

$$e^{(\cos(2\pi x) + \sin(2\pi x))} \quad (1)$$

Domain = (0,1)

## 2 Function 2

$$e^{\sin(2\pi x)} \quad (2)$$

Domain = (0,1)

## 3 Function 3

$$e^{\cos(2\pi x)} \quad (3)$$

Domain = (0,1)

## 4 Function 4

$$e^{\sin(2\pi x)} + x \quad (4)$$

Domain = (0,1)

## 5 Function 5

$$e^{\cos(2\pi x)} + x \quad (5)$$

Domain = (0,1)

## 6 Function 6

$$e^{\tanh(2\pi x)} \tag{6}$$

$$\text{Domain} = (0,1)$$

## 7 Function 7

$$e^{\sin(2\pi x)} + \log_e(x) \tag{7}$$

$$\text{Domain} = (0,1)$$

## 8 Function 8

$$e^{\cos(2\pi x)} + \log_e(x) \tag{8}$$

$$\text{Domain} = (0,1)$$

## 9 Function 9

$$\cos(2\pi x) + \tanh(2\pi x) \tag{9}$$

$$\text{Domain} = (0,1)$$

## 10 Function 10

$$\sin(2\pi x) + \tanh(2\pi x) \tag{10}$$

$$\text{Domain} = (0,1)$$

## 11 Function 11

$$\sin^2(2\pi x) \tag{11}$$

$$\text{Domain} = (0,1)$$

## 12 Function 12

$$\cos^2(2\pi x) \tag{12}$$

$$\text{Domain} = (0,1)$$

## 13 Function 13

$$\cos(2\pi x) + \sin(2\pi x) \tag{13}$$

$$\text{Domain} = (0,1)$$

## 14 Function 14

$$e^{(\cos(2\pi x) - \sin(2\pi x))} \quad (14)$$

Domain = (0,1)

## 15 Function 15

$$e^{(\cos(2\pi x) - \tanh(2\pi x))} \quad (15)$$

Domain = (0,1)

## 16 Function 16

$$e^{(\cos(2\pi x) + \sin(2\pi x) - \tanh(2\pi x))} \quad (16)$$

Domain = (0,1)

## 17 Function 17

$$e^{(\cos(2\pi x) - \sin(2\pi x))} + x \quad (17)$$

Domain = (0,1)

## 18 Function 18

$$e^{(\cos(2\pi x) + \sin(2\pi x))} + x \quad (18)$$

Domain = (0,1)

## 19 Function 19

$$e^{(\cos(2\pi x) + \sin(2\pi x) + \tanh(2\pi x))} - \log_e(x) \quad (19)$$

Domain = (0,1)

## 20 Function 20

$$e^{(\cos(2\pi x) + \tanh(2\pi x))} + \sin(2\pi x) \quad (20)$$

Domain = (0,1)

## 21 Function 21

$$e^{(\cos(2\pi x) + \sin(2\pi x))} + \tanh(2\pi x) \quad (21)$$

Domain = (0,1)

## 22    Function 22

$$e^{(\sin(2\pi x) - \tanh(2\pi x))} + \cos(2\pi x) \tag{22}$$

Domain = (0,1)

## 23    Function 23

$$e^{(x\cos^2(2\pi x))} \tag{23}$$

Domain = (0,1)

## 24    Function 24

$$e^{(\cos(2\pi x) - \sin(2\pi x))} - \frac{1}{2}\log_e(x) \tag{24}$$

Domain = (0,1)