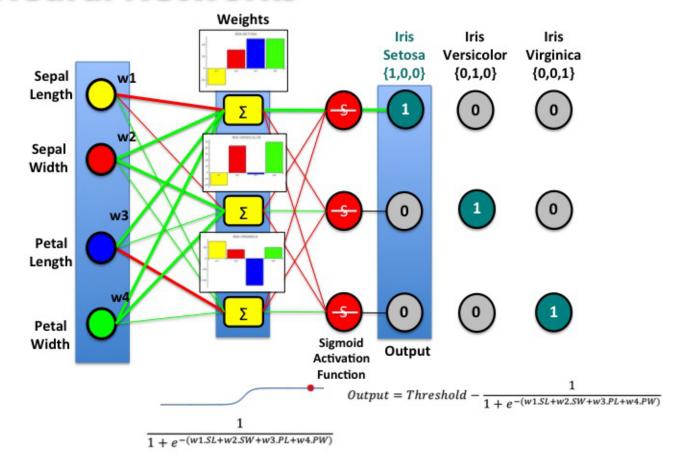
# **Neural Networks**



```
In[2]:= a = {5.1, 3.5, 1.4, 0.2, "Iris-setosa",
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    5.4, 3.9, 1.7, 0.4, "Iris-setosa",
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    4.9, 3.1, 1.5, 0.1, "Iris-setosa",
    5.4, 3.7, 1.5, 0.2, "Iris-setosa",
    4.8, 3.4, 1.6, 0.2, "Iris-setosa",
    4.8, 3.0, 1.4, 0.1, "Iris-setosa",
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    5.8, 4.0, 1.2, 0.2, "Iris-setosa",
    5.7, 4.4, 1.5, 0.4, "Iris-setosa",
    5.4, 3.9, 1.3, 0.4, "Iris-setosa",
    5.1, 3.5, 1.4, 0.3, "Iris-setosa",
    5.7, 3.8, 1.7, 0.3, "Iris-setosa",
    5.1, 3.8, 1.5, 0.3, "Iris-setosa",
    5.4, 3.4, 1.7, 0.2, "Iris-setosa",
    5.1, 3.7, 1.5, 0.4, "Iris-setosa",
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    5.1, 3.3, 1.7, 0.5, "Iris-setosa",
    4.8, 3.4, 1.9, 0.2, "Iris-setosa",
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    5.2, 3.4, 1.4, 0.2, "Iris-setosa",
    4.7, 3.2, 1.6, 0.2, "Iris-setosa",
    4.8, 3.1, 1.6, 0.2, "Iris-setosa",
    5.4, 3.4, 1.5, 0.4, "Iris-setosa",
    5.2, 4.1, 1.5, 0.1, "Iris-setosa",
    5.5, 4.2, 1.4, 0.2, "Iris-setosa",
    4.9, 3.1, 1.5, 0.1, "Iris-setosa"
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    5.5, 3.5, 1.3, 0.2, "Iris-setosa",
    4.9, 3.1, 1.5, 0.1, "Iris-setosa",
    4.4, 3.0, 1.3, 0.2, "Iris-setosa",
    5.1, 3.4, 1.5, 0.2, "Iris-setosa",
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    4.4, 3.2, 1.3, 0.2, "Iris-setosa",
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    4.8, 3.0, 1.4, 0.3, "Iris-setosa",
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    4.6, 3.2, 1.4, 0.2, "Iris-setosa",
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    6.4, 3.2, 4.5, 1.5, "Iris-versicolor",
    6.9, 3.1, 4.9, 1.5, "Iris-versicolor",
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```
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6.7, 3.1, 5.6, 2.4, "Iris-virginica",
6.9, 3.1, 5.1, 2.3, "Iris-virginica",
```

```
IRIS.BACKPROP.GITHUB.nb 3
                                           5.8, 2.7, 5.1, 1.9, "Iris-virginica",
                                            6.8, 3.2, 5.9, 2.3, "Iris-virginica",
                                            6.7, 3.3, 5.7, 2.5, "Iris-virginica",
                                            6.7, 3.0, 5.2, 2.3, "Iris-virginica",
                                           6.3, 2.5, 5.0, 1.9, "Iris-virginica",
                                           6.5, 3.0, 5.2, 2.0, "Iris-virginica",
                                           6.2, 3.4, 5.4, 2.3, "Iris-virginica",
                                           5.9, 3.0, 5.1, 1.8, "Iris-virginica"};
     in[3]:= a02 = Partition[a, 5]; Dimensions[a02]
Out[3]= \{150, 5\}
     In[4]:= PREPARING DATA;
    \ln[5] = a2 = Partition[Drop[a02[[#]], -1] & /@ Table[k, {k, 1, Dimensions[a02][[1]], 1}], 50]
 \text{Out} \texttt{[\{\{5.1, 3.5, 1.4, 0.2\}, \{4.9, 3., 1.4, 0.2\}, \{4.7, 3.2, 1.3, 0.2\}, \{4.6, 3.1, 1.5, 0.2\}, \{5., 3.6, 1.4, 0.2\}, \{5.4, 3.9, 1.7, 0.4\}, \}}
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                                                                  \{5.5, 4.2, 1.4, 0.2\}, \{4.9, 3.1, 1.5, 0.1\}, \{5., 3.2, 1.2, 0.2\}, \{5.5, 3.5, 1.3, 0.2\}, \{4.9, 3.1, 1.5, 0.1\}, \{4.4, 3., 1.3, 0.2\}, \{4.9, 3.1, 1.5, 0.1\}, \{4.1, 3., 1.3, 0.2\}, \{4.9, 3.1, 1.5, 0.1\}, \{4.1, 3., 1.3, 0.2\}, \{4.9, 3.1, 1.5, 0.1\}, \{4.1, 3., 1.3, 0.2\}, \{4.9, 3.1, 1.5, 0.1\}, \{4.1, 3., 1.3, 0.2\}, \{4.9, 3.1, 1.5, 0.1\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}, \{4.1, 3., 1.3, 0.2\}
                                                                  \{4.8, 3., 1.4, 0.3\}, \{5.1, 3.8, 1.6, 0.2\}, \{4.6, 3.2, 1.4, 0.2\}, \{5.3, 3.7, 1.5, 0.2\}, \{5., 3.3, 1.4, 0.2\}\},
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                                                                  \{5.6, 3., 4.5, 1.5\}, \{5.8, 2.7, 4.1, 1.\}, \{6.2, 2.2, 4.5, 1.5\}, \{5.6, 2.5, 3.9, 1.1\}, \{5.9, 3.2, 4.8, 1.8\}, \{6.1, 2.8, 4., 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 1.3\}, \{6.1, 2.8, 4.7, 4.7, 4.7, 4.7, 4.7\}, \{6.1, 2.8, 4.7, 4.7, 4.7, 4.7\}, \{6.1, 2.8, 4.7, 4.7, 4.7, 4.7\}, \{6.1, 2.8,
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                                                                  \{6., 2.7, 5.1, 1.6\}, \{5.4, 3., 4.5, 1.5\}, \{6., 3.4, 4.5, 1.6\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.3, 2.3, 4.4, 1.3\}, \{5.6, 3., 4.1, 1.3\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.3, 2.3, 4.4, 1.3\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6.7, 3.1, 4.7, 1.5\}, \{6
                                                                  \{5.5, 2.5, 4., 1.3\}, \{5.5, 2.6, 4.4, 1.2\}, \{6.1, 3., 4.6, 1.4\}, \{5.8, 2.6, 4., 1.2\}, \{5., 2.3, 3.3, 1.\}, \{5.6, 2.7, 4.2, 1.3\}, \{5.5, 2.5, 4., 1.3\}, \{5.5, 2.6, 4.4, 1.2\}, \{6.1, 3., 4.6, 1.4\}, \{5.8, 2.6, 4., 1.2\}, \{5.7, 2.3, 3.3, 1.\}, \{5.8, 2.6, 4.4, 1.2\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6, 1.4\}, \{6.1, 3., 4.6\}, \{6.1, 3., 4.6\}, \{6.1, 3., 4.6\}, \{6.1, 4.4\}, \{6.1, 4
                                                                  \{5.7, 3., 4.2, 1.2\}, \{5.7, 2.9, 4.2, 1.3\}, \{6.2, 2.9, 4.3, 1.3\}, \{5.1, 2.5, 3., 1.1\}, \{5.7, 2.8, 4.1, 1.3\}\}, \{5.7, 3., 4.2, 1.2\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 3., 4.2, 1.2\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{5.7, 2.8, 4.1, 1.3\}, \{
                                                          \{\{6.3,\,3.3,\,6.,\,2.5\}\,,\,\{5.8,\,2.7,\,5.1,\,1.9\}\,,\,\{7.1,\,3.,\,5.9,\,2.1\}\,,\,\{6.3,\,2.9,\,5.6,\,1.8\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.3,\,3.3,\,6.,\,2.5\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.8,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,5.2,\,2.2\}\,,\,\{6.5,\,3.,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2,\,2.2\}\,,\,\{6.5,\,3.2
                                                                   \{7.6, 3., 6.6, 2.1\}, \{4.9, 2.5, 4.5, 1.7\}, \{7.3, 2.9, 6.3, 1.8\}, \{6.7, 2.5, 5.8, 1.8\}, \{7.2, 3.6, 6.1, 2.5\}, \{7.6, 3.6, 6.7, 2.5, 5.8, 1.8\}
                                                                   \{7.7, 2.8, 6.7, 2.\}, \{6.3, 2.7, 4.9, 1.8\}, \{6.7, 3.3, 5.7, 2.1\}, \{7.2, 3.2, 6., 1.8\}, \{6.2, 2.8, 4.8, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 1.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9, 4.8\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 3., 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6.1, 4.9\}, \{6
                                                                  \{6.4, 2.8, 5.6, 2.1\}, \{7.2, 3., 5.8, 1.6\}, \{7.4, 2.8, 6.1, 1.9\}, \{7.9, 3.8, 6.4, 2.\}, \{6.4, 2.8, 5.6, 2.2\},
                                                                  \{6.3, 2.8, 5.1, 1.5\}, \{6.1, 2.6, 5.6, 1.4\}, \{7.7, 3., 6.1, 2.3\}, \{6.3, 3.4, 5.6, 2.4\}, \{6.4, 3.1, 5.5, 1.8\}, \{6., 3., 4.8, 1.8\}, \{6.3, 2.8, 5.1, 1.5\}
                                                                  \{6.9, 3.1, 5.4, 2.1\}, \{6.7, 3.1, 5.6, 2.4\}, \{6.9, 3.1, 5.1, 2.3\}, \{5.8, 2.7, 5.1, 1.9\}, \{6.8, 3.2, 5.9, 2.3\}, \{6.9, 3.1, 5.4, 2.1\}
```

 $\{6.7, 3.3, 5.7, 2.5\}, \{6.7, 3., 5.2, 2.3\}, \{6.3, 2.5, 5., 1.9\}, \{6.5, 3., 5.2, 2.\}, \{6.2, 3.4, 5.4, 2.3\}, \{5.9, 3., 5.1, 1.8\}\}$ 

ln[15] := t = 1;

#### In[16]:= NO HIDDEN LAYER;

 $ln[17]:= 1 / (1 + 2.71^-t)$ 

Out[17]= 0.730458

```
In[18]:= Manipulate[
```

```
o4 = a2[[aa]][[nv]][[4]]; error4 = o4 (1 - o4) (t - o4); w004 = 1 + -.005 error4 a2[[aa]][[nv]][[4]];

o3 = a2[[aa]][[nv]][[3]]; error3 = o3 (1 - o3) (t - o3); w003 = 1 + -.005 error3 a2[[aa]][[nv]][[3]];

o2 = a2[[aa]][[nv]][[2]]; error2 = o2 (1 - o2) (t - o2); w002 = 1 + -.005 error2 a2[[aa]][[nv]][[2]];

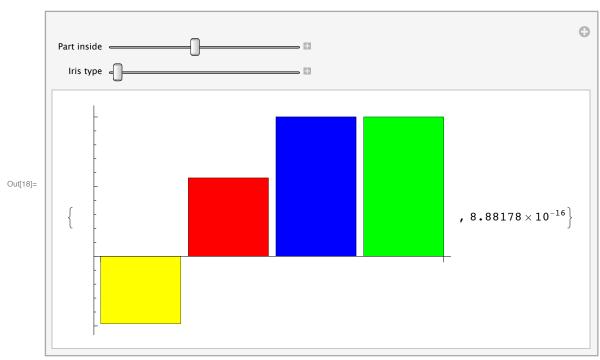
o1 = a2[[aa]][[nv]][[1]];
 error1 = o1 (1 - o1) (t - o1);

w001 = 1 + (t - (a2[[aa]][[nv]][[1]] + w002 a2[[aa]][[nv]][[2]] + w003 a2[[aa]][[nv]][[3]] + w004 a2[[aa]][[nv]][[4]])) /
 a2[[aa]][[nv]][[1]];

diff = t - (w001 a2[[aa]][[nv]][[1]] + w002 a2[[aa]][[nv]][[2]] + w003 a2[[aa]][[nv]][[3]] + w004 a2[[aa]][[nv]][[4]]);

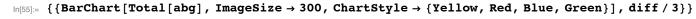
{BarChart[{w001, w002, w003, w004}, ImageSize → 400, ChartStyle → {Yellow, Red, Blue, Green}], diff},

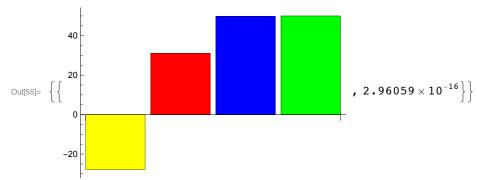
{nv, 1, "Part inside"}, 1, 50, 1}, {{aa, 1, "Iris type"}, 1, 3, 1}]
```



# BACKPROPAGATION IRIS SETOSA;

```
in[20]:= abg = { }; Do[AppendTo[abg,
                                                                                            o4 = a2[[1]][[nv]][[4]]; error4 = o4(1-o4)(t-o4); w004 = 1+-.005 error4 a2[[1]][[nv]][[4]];
                                                                                            o3 = a2[[1]][[nv]][[3]]; error3 = o3(1-o3)(t-o3); w003 = 1+-.005 error3 a2[[1]][[nv]][[3]];
                                                                                          o2 = a2[[1]][[nv]][[2]]; error2 = o2 (1 - o2) (t - o2); w002 = 1 + -.005 error2 a2[[1]][[nv]][[2]];
                                                                                            o1 = a2[[1]][[nv]][[1]];
                                                                                            error1 = o1 (1 - o1) (t - o1);
                                                                                            w001 = 1 +
                                                                                                                           (t - (a2[[1]][[nv]][[1]] + w002 a2[[1]][[nv]][[2]] + w003 a2[[1]][[nv]][[3]] + w004 a2[[1]][[nv]][[4]])) / a2[[1]][[nv]][[1]];
                                                                                             \{w001,\,w002,\,w003,\,w004\}]\,,\,\{nv,\,Table[\,k,\,\{k,\,1,\,50,\,1\}\,]\,\}\,]\,;\,abg
\mathsf{Out}(20) = \left\{ \left\{ -0.540772, \, 0.617188, \, 0.998432, \, 0.999872 \right\}, \, \left\{ -0.624037, \, 0.82, \, 0.998432, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.99924, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.99924, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.99924, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.99924, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.99924, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.99924, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.99924, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.99924, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.99924, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.9998432, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.9998432, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.9998432, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.9998432, \, 0.999872 \right\}, \, \left\{ -0.618298, \, 0.752192, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.9998432, \, 0.999842, \, 0.999842, \, 0.999842, \, 0.9998432, \, 0.999842, \, 0.999842, \, 0.999842, \, 0.999842, \, 0.999842, \, 0.999842, \, 0.999842, \, 0.999842, \, 0.999842, \, 0.999842, \, 0
                                                                                  \{-0.682362, 0.7881, 0.997188, 0.999872\}, \{-0.524161, 0.561952, 0.998432, 0.999872\}, \{-0.461756, 0.36042, 0.99292, 0.999712\}, \{-0.682362, 0.7881, 0.997188, 0.999872\}, \{-0.682362, 0.7881, 0.997188, 0.999872\}, \{-0.524161, 0.561952, 0.998432, 0.999872\}, \{-0.461756, 0.36042, 0.99292, 0.999712\}, \{-0.682362, 0.99881, 0.997188, 0.999872\}, \{-0.524161, 0.561952, 0.9988432, 0.999872\}, \{-0.461756, 0.36042, 0.99292, 0.999712\}, \{-0.682362, 0.998832, 0.998872\}, \{-0.461756, 0.36042, 0.99292, 0.999712\}, \{-0.461756, 0.36042, 0.999872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.999872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.36042, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.461756, 0.998872\}, \{-0.46176, 0.99882\}, \{-0.461766, 0.99882\}, \{-0.461766, 0.99882\}, \{-0.46176
                                                                                 \{-0.644736,\, 0.667072,\, 0.998432,\, 0.99978\},\, \{-0.59276,\, 0.667072,\, 0.997188,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.999872\},\, \{-0.694899,\, 0.8482,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998432,\, 0.9998442,\, 0.9998442,\, 0.99984444,\, 0.9998444,\, 0.999844,\, 0.9998444,\, 0.9998444,\, 0.9998444,\, 0.999844,\, 0.999844,\, 0.9
                                                                                 \{-0.620181,\, 0.7881,\, 0.997188,\, 0.99996\},\, \{-0.472121,\, 0.500999,\, 0.997188,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.995392,\, 0.999872\},\, \{-0.620181,\, 0.7881,\, 0.997188,\, 0.9999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.999872\},\, \{-0.637635,\, 0.667072,\, 0.9995392,\, 0.9997188,\, 0.9997188,\, 0.9999872\},\, \{-0.637635,\, 0.667072,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997184,\, 0.9997188,\, 0.9997188,\, 0.9997188,\, 0.9997188,
                                                                                \{-0.616208, 0.82, 0.998432, 0.99996\}, \{-0.618588, 0.82, 0.99994, 0.99996\}, \{-0.262005, 0.28, 0.999712, 0.999872\}, \{-0.616208, 0.82, 0.9998432, 0.99986\}, \{-0.616208, 0.82, 0.9998432, 0.99996\}, \{-0.618588, 0.82, 0.99994, 0.99996\}, \{-0.616208, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99994, 0.99996\}, \{-0.616208, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99994, 0.99996\}, \{-0.616208, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.99996\}, \{-0.618588, 0.82, 0.999998\}, \{-0.618588, 0.82, 0.999998\}, \{-0.618588, 0.82, 0.999998\}, \{-0.618588, 0.82, 0.999998\}, \{-0.618588, 0.82, 0.999998\}, \{-0.618588, 0.82, 0.999998\}, \{-0.618588, 0.82, 0.999998\}, \{-0.618588, 0.82, 0.999998\}, \{-0.618588, 0.82, 0.999998\}, \{-0.618588, 0.82, 0.99998\}, \{-0.618588, 0.82, 0.99998\}, \{-0.618588, 0.82, 0.99988\}, \{-0.618588, 0.82, 0.99988\}, \{-0.618588, 0.82, 0.99988\}, \{-0.618588, 0.82, 0.99988\}, \{-0.618588, 0.82, 0.99988\}, \{-0.618588, 0.82, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.82, 0.99888\}, \{-0.618588, 0.82, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.618588, 0.99888\}, \{-0.6185888, 0.99888\}, \{-0.6185888, 0.998888\}, \{-0.6188888, 0.99888\}, \{-0.6188888, 0.99888\}, \{-0.6188888, 0.99888\}, \{-0.6188888, 0.99888
                                                                                \{-0.0652686, -0.119008, 0.997188, 0.999712\}, \{-0.389728, 0.36042, 0.99924, 0.999712\}, \{-0.0652686, -0.119008, 0.997188, 0.999712\}, \{-0.0652686, -0.119008, 0.997188, 0.999712\}, \{-0.0652686, -0.119008, 0.997188, 0.999718\}, \{-0.0652686, -0.119008, 0.997188, 0.999718\}, \{-0.0652686, -0.0652686, -0.065268, 0.997188, 0.999718\}, \{-0.0652686, -0.065268, 0.999718, 0.999718, 0.999718\}, \{-0.065268, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.999718, 0.99
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                                                                                \{-0.620181, 0.7881, 0.997188, 0.99996\}, \{-0.561329, 0.752192, 0.999712, 0.999872\}, \{-0.48348, 0.617188, 0.99924, 0.999872\}, \{-0.620181, 0.7881, 0.997188, 0.99996\}, \{-0.561329, 0.752192, 0.999712, 0.999872\}, \{-0.48348, 0.617188, 0.99994, 0.999872\}, \{-0.561329, 0.752192, 0.999712, 0.999872\}, \{-0.48348, 0.617188, 0.99994, 0.9999872\}, \{-0.620181, 0.999872\}, \{-0.620181, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99998, 0.99999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 
                                                                                 \{-0.620181,\, 0.7881,\, 0.997188,\, 0.99996\},\, \{-0.672497,\, 0.82,\, 0.99924,\, 0.999872\},\, \{-0.581137,\, 0.667072,\, 0.997188,\, 0.999872\},\, \{-0.620181,\, 0.7881,\, 0.997188,\, 0.9999872\},\, \{-0.672497,\, 0.82,\, 0.99924,\, 0.999872\},\, \{-0.581137,\, 0.667072,\, 0.9997188,\, 0.9999872\},\, \{-0.672497,\, 0.82,\, 0.99924,\, 0.9999872\},\, \{-0.581137,\, 0.667072,\, 0.9997188,\, 0.9999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.82,\, 0.999872\},\, \{-0.672497,\, 0.999872\},\, \{-0.672497,\, 0.999872\},\, \{-0.672497,\, 0.999872\},\, \{-0.672497,\, 0.99982\},\, \{-0.672497,\, 0.99982\},\, \{-0.672497,\, 0.99982\},\, \{-0.672497,\, 0.99982\},\, \{-0.67
                                                                                   \{-0.55182,\ 0.617188,\ 0.99924,\ 0.99978\},\ \{-0.621363,\ 0.9553,\ 0.99924,\ 0.99978\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660455,\ 0.752192,\ 0.99924,\ 0.999872\},\ \{-0.660450,\ 0.99924,\ 0.999924,\ 0.999872\},\ \{-0.660450,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924,\ 0.99924
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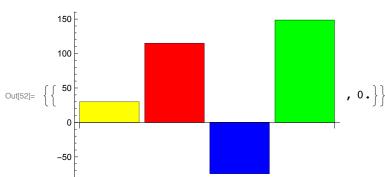
## BACKPROPAGATION IRIS VERSICOLOR;

```
In[23]:= abg2 = { }; t2 = 1; Do[AppendTo[abg2,
                                                                      o42 = a2[[2]][[nv2]][[4]]; error42 = o42(1-o42)(t2-o42); w0042 = 1+-.005 error42 a2[[2]][[nv2]][[4]];
                                                                     o32 = a2[[2]][[nv2]][[3]]; error32 = o32(1-o32)(t2-o32); w0032 = 1+-.005 error32 a2[[2]][[nv2]][[3]];
                                                                      o22 = a2[[2]][[nv2]][[2]]; error22 = o22(1 - o22)(t2 - o22); w0022 = 1 + -.005 error22 a2[[2]][[nv2]][[2]];
                                                                     o12 = a2[[2]][[nv2]][[1]];
                                                                     error12 = o12 (1 - o12) (t2 - o12);
                                                                     w0012 = 1 + (t2 - (a2[[2]][[nv2]][[1]] + w0022 a2[[2]][[nv2]][[2]] + w0032 a2[[2]][[nv2]][[3]] + w0042 a2[[2]][[nv2]][[4]])) / (a2[[2])[[nv2])[[1]] + w0042 a2[[2]][[nv2]][[4]])) / (a2[[2])[[nv2])[[1]] + w0042 a2[[2]][[nv2]][[1]] + w0042 a2[[2]][[nv2]][[nv2]][[1]] + w0042 a2[[2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2]][[nv2][[nv2]][[nv2]][[nv2]][[nv2]][[nv2][[nv2]][[nv2]][[nv2][[nv2]][[nv2]][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv2][[nv
                                                                                                        a2[[2]][[nv2]][[1]];
                                                                      diff2 = t2 - (w0012 \ a2[[2]][[nv2]][[1]] + w0022 \ a2[[2]][[nv2]][[2]] + w0032 \ a2[[2]][[nv2]][[3]] + w0042 \ a2[[2]][[nv2]][[4]]);
                                                                      \{w0012,\,w0022,\,w0032,\,w0042\}]\,,\,\{nv2,\,Table[k,\,\{k,\,1,\,50,\,1\}]\}]\,;\,abg2
\text{Out}[23] = \ \left\{ \left\{ -0.0568764 \text{, } 0.752192 \text{, } -0.512061 \text{, } 0.998432 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.997188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.998188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } -0.240312 \text{, } 0.998188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } 0.998188 \text{, } 0.998188 \right\} \text{, } \left\{ -0.284592 \text{, } 0.752192 \text{, } 0.998188 \text{, }
                                                             \{0.160626, 0.7881, -0.825961, 0.997188\}, \{-0.657491, 0.9553, 0.28, 0.99924\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.371168, 0.997188\}, \{-0.189659, 0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992, -0.872992
                                                             \{-0.291576, 0.872992, -0.240312, 0.99924\}, \{-0.0849856, 0.71196, -0.512061, 0.995392\}, \{-0.941631, 0.943552, 0.71196, 1.\}, \{-0.291576, 0.872992, -0.240312, 0.99924\}, \{-0.0849856, 0.71196, -0.512061, 0.995392\}, \{-0.941631, 0.943552, 0.71196, 1.\}, \{-0.0849856, 0.71196, -0.512061, 0.995392\}, \{-0.941631, 0.943552, 0.71196, 1.\}, \{-0.0849856, 0.71196, -0.512061, 0.995392\}, \{-0.941631, 0.943552, 0.71196, 1.\}, \{-0.0849856, 0.71196, -0.512061, 0.995392\}, \{-0.941631, 0.943552, 0.71196, 1.\}, \{-0.0849856, 0.71196, -0.512061, 0.995392\}, \{-0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.943552, 0.71196, -0.941631, 0.94352, 0.94162, 0.941631, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94162, 0.94
                                                             \{-0.159306, 0.8482, -0.371168, 0.99924\}, \{-0.81135, 0.894659, 0.36042, 0.998432\}, \{-0.824031, 0.98, 0.617188, 1.\}, \{-0.824031, 0.98, 0.8482, -0.371168, 0.99924\}, \{-0.81135, 0.894659, 0.36042, 0.998432\}, \{-0.824031, 0.98, 0.617188, 1.\}, \{-0.81180, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99843, 0.99844, 0.99843, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.99844, 0.9984
                                                             \{-0.569911, 0.82, 0.096832, 0.997188\}, \{-0.540556, 0.965152, 0.28, 1.\}, \{-0.0739179, 0.8482, -0.512061, 0.998432\}, \{-0.569911, 0.82, 0.096832, 0.997188\}, \{-0.540556, 0.965152, 0.28, 1.\}, \{-0.0739179, 0.8482, -0.512061, 0.998432\}, \{-0.08482, -0.098832, 0.997188\}, \{-0.08482, -0.098832, 0.997188\}, \{-0.08482, -0.098832, 0.997188\}, \{-0.08482, -0.098832, 0.997188\}, \{-0.08482, -0.098832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.998832, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.99882, 0.9
                                                             \{-0.853896, 0.8482, 0.561952, 0.99924\}, \{-0.345862, 0.7881, -0.119008, 0.998432\}, \{-0.33471, 0.82, -0.240312, 0.997188\}, \{-0.853896, 0.8482, 0.561952, 0.99924\}, \{-0.853896, 0.8482, 0.561952, 0.99924\}, \{-0.853896, 0.8482, 0.561952, 0.99924\}, \{-0.853896, 0.8482, 0.561952, 0.99924\}, \{-0.853896, 0.8482, 0.561952, 0.99924\}, \{-0.85886, 0.7881, -0.119008, 0.998432\}, \{-0.85886, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482, 0.8482,
                                                             \{-0.552401, 0.894659, 0.19228, 1.\}, \{-0.248018, 0.965152, -0.240312, 0.997188\}, \{-0.683891, 0.929688, 0.36042, 0.99994\}, \{-0.552401, 0.894659, 0.19228, 1.\}, \{-0.248018, 0.965152, -0.240312, 0.997188\}, \{-0.683891, 0.929688, 0.36042, 0.999994\}, \{-0.683891, 0.929688, 0.36042, 0.999994\}, \{-0.683891, 0.999998, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.99999, 0.9999, 0.99999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0.9999, 0
                                                             \{-0.000611797, 0.752192, -0.663488, 0.989632\}, \{-0.633342, 0.872992, 0.28, 0.99924\}, \}
                                                             \{0.194795, 0.929688, -0.825961, 0.997188\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.872992, -0.512061, 0.999712\}, \{-0.0389095, 0.899095, 0.89909, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.9990, 0.99
                                                             \{-0.426505, 0.8482, -0.0067805, 0.99924\}, \{-0.353662, 0.82, -0.119008, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.872992, -0.663488, 0.998432\}, \{0.0503765, 0.898432\}, \{0.0503765, 0.898432\}, \{0.0503765, 0.898432\}, \{0.0503765, 0.898432\}, \{0.0503765, 0.898432\}, \{0.0503765, 0.898432\}, \{0.0503765, 0.898432\}, \{0.0503765, 0.898432\}, \{0.0503765, 0.898432\}, \{0.0503765, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0.898425, 0
                                                             \{0.276423,\,0.82,\,-1.,\,0.99292\},\,\{-0.312359,\,0.8482,\,-0.240312,\,0.997188\},\,\{-0.795646,\,0.913472,\,0.617188,\,1.\},\,\{-0.795646,\,0.913472,\,0.617188,\,1.\}
                                                             \{-0.729723, 0.943552, 0.433952, 0.99994\}, \{-0.748768, 0.943552, 0.500999, 1.\}, \{-0.693254, 0.894659, 0.36042, 0.999712\}, \{-0.748768, 0.943552, 0.500999, 1.\}
                                                              \{0.506851,\, 0.894659,\, -1.18614,\, 0.995392\},\, \{-0.347106,\, 0.82,\, -0.240312,\, 0.997188\},\, \{-0.296544,\, 0.667072,\, -0.240312,\, 0.995392\},\, \{-0.347106,\, 0.82,\, -0.240312,\, 0.997188\},\, \{-0.296544,\, 0.667072,\, -0.240312,\, 0.995392\},\, \{-0.347106,\, 0.82,\, -0.240312,\, 0.997188\},\, \{-0.296544,\, 0.667072,\, -0.240312,\, 0.995392\},\, \{-0.347106,\, 0.82,\, -0.240312,\, 0.997188\},\, \{-0.347106,\, 0.82,\, -0.240312,\, 0.997188\},\, \{-0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, 0.82,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347106,\, -0.347
                                                             \{-0.0794336, 0.7881, -0.512061, 0.997188\}, \{-0.313106, 0.9553, -0.119008, 0.99924\},
                                                             \{-0.633457, 0.82, 0.19228, 0.99924\}, \{-0.680587, 0.929688, 0.28, 0.99924\}, \{-0.372918, 0.913472, -0.119008, 0.999712\}, \{-0.633457, 0.82, 0.19228, 0.99924\}, \{-0.680587, 0.929688, 0.28, 0.99924\}, \{-0.372918, 0.913472, -0.119008, 0.999712\}, \{-0.680587, 0.929688, 0.28, 0.99924\}, \{-0.372918, 0.913472, -0.119008, 0.999712\}, \{-0.680587, 0.929688, 0.28, 0.99924\}, \{-0.372918, 0.913472, -0.119008, 0.999712\}, \{-0.680587, 0.99924\}, \{-0.680587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.99924\}, \{-0.890587, 0.
                                                             \{-0.188595, 0.82, -0.371168, 0.998432\}, \{-0.637014, 0.913472, 0.28, 0.999712\}, \{-0.909331, 0.9553, 0.71196, 1.\},
                                                             \{-0.440264,\,0.8482,\,-0.0067805,\,0.99924\},\,\{-0.957677,\,0.929688,\,0.82,\,0.99994\},\,\{-0.619603,\,0.872992,\,0.19228,\,0.99924\}\}
     In[24]:= Total[abg2[[1]] a2[[2]][[1]]]
Out[24]= 1.
     50
                                                                           40
                                                                           30
                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                              , 0. } }
Out[54]=
                                                                           10
```

BACKPROPAGATION IRIS VIRGINICA;

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ln[27]:= abg23 = {}; t23 = 1; Do[AppendTo[abg23,
                                                                             o423 = a2[[3]][[nv3]][[4]];
                                                                              error423 = o423 (1 - o423) (t23 - o423);
                                                                              w00423 = 1 + -.005 error423 a2[[3]][[nv3]][[4]];
                                                                             o323 = a2[[3]][[nv3]][[3]];
                                                                              error323 = o323 (1 - o323) (t23 - o323);
                                                                             w00323 = 1 + -.005 error323 a2[[3]][[nv3]][[3]];
                                                                             o223 = a2[[3]][[nv3]][[2]];
                                                                             error223 = o223 (1 - o223) (t23 - o223);
                                                                              w00223 = 1 + -.005 error223 a2[[3]][[nv3]][[2]];
                                                                              o123 = a2[[3]][[nv3]][[1]];
                                                                              error123 = o123 (1 - o123) (t23 - o123);
                                                                              w00123 = 1 + (t23 - (a2[[3]][[nv3]][[1]] + w00223 a2[[3]][[nv3]][[2]] +
                                                                                                                                                              w00323 a2[[3]][[nv3]][[3]] + w00423 a2[[3]][[nv3]][[4]])) / a2[[3]][[nv3]][[1]];
                                                                              w00423 a2[[3]][[nv3]][[4]]);
                                                                              \{w00123,\,w00223,\,w00323,\,w00423\}]\,,\,\{nv3,\,Table[\,k,\,\{k,\,1,\,50,\,1\}\,]\,\}]\,;\,abg23,\,w00123,\,w00123,\,w00123,\,w00123,\,w00123\}
\texttt{Out} \texttt{[27]=} \ \{ \texttt{\{2.75021, 0.71196, -3.5, 0.929688\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, }
                                                                    \{2.14814, 0.82, -3.17894, 0.97332\}, \{1.54588, 0.8482, -2.31789, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.965152\}, \{2.14814, 0.82, -3.17894, 0.97332\}, \{1.54588, 0.8482, -2.31789, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.965152\}, \{1.54588, 0.8482, -2.31789, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.965152\}, \{2.0148, 0.8482, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.82, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, -2.87533, 0.989632\}, \{2.0144, 0.882, 0.98533, 0.98533, 0.98533, 0.98533, 0.98533, 0.98533, 0.98533, 0.98533, 0.98533, 0.98533, 0.98533, 0.98533, 0.985333, 0.98533, 0.
                                                                    \{4.60203, 0.82, -5.83021, 0.97332\}, \{-0.394036, 0.929688, -0.240312, 0.99292\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, -4.57446, 0.989632\}, \{3.50383, 0.8482, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.9882, 0.
                                                                    \{2.02557, 0.929688, -2.87533, 0.989632\}, \{2.78773, 0.561952, -3.83916, 0.929688\}, \{0.412662, 0.752192, -1.18614, 0.98\}, \{0.988632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.989632\}, \{0.989688, -2.87533, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0.98968, 0
                                                                    \{0.808731, 0.894659, -1.59692, 0.98538\}, \{1.15316, 0.82, -2.06281, 0.97332\}, \{0.301014, 0.929688, -1., 0.98\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808731, 0.894659, -1.59692, 0.98538\}, \{0.808750, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.894655, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465, 0.89465
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                                                                    \{2.56645, 0.82, -3.83916, 0.9553\}, \{1.49962, 0.667072, -2.31789, 0.943552\}, \{1.26891, 0.7881, -2.06281, 0.989632\}, \{1.49962, 0.667072, -2.31789, 0.943552\}, \{1.26891, 0.7881, -2.06281, 0.989632\}, \{1.49962, 0.667072, -2.31789, 0.943552\}, \{1.26891, 0.7881, -2.06281, 0.989632\}, \{1.49962, 0.667072, -2.31789, 0.943552\}, \{1.26891, 0.7881, -2.06281, 0.989632\}, \{1.49962, 0.667072, -2.31789, 0.943552\}, \{1.26891, 0.7881, -2.06281, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.989632\}, \{1.26891, 0.98962\}, \{1.26891, 0.98962\}, \{1.26891, 0.98962\}, \{1.26891, 0.98962\}, \{1.26891, 0.98962\}, \{1.26891, 0.98962\}
                                                                    \{-0.00943253, 0.82, -0.663488, 0.989632\}, \{0.921078, 0.7881, -1.82269, 0.97332\}, \{1.38396, 0.7881, -2.31789, 0.943552\},
                                                                    \{0.349133, 0.7881, -1.18614, 0.9553\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{2.22817, 0.752192, -3.17894, 0.9553\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, -1.18614, 0.98538\}, \{0.476123, 0.894659, 0.894659, 0.89468\}, \{0.476123, 0.894659, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468, 0.89468\}, \{0.476123, 0.89468\}, \{0.476123, 0.89468\}, \{0.476123, 0.89468\}, \{0.476123, 0.89468\}, \{0.476123, 0.89468\}, \{0.476123, 0.89468\}, \{0.476123, 0.89468\}, \{0.476123, 0.89468\}, \{0.476123, 0.89468\}, \{0.476123, 0.89
                                                                    \{1.65386, 0.71196, -2.58852, 0.929688\}, \{0.52902, 0.82, -1.38493, 0.9553\}, \{0.286279, 0.929688, -1., 0.98538\}, \{0.865386, 0.71196, -2.58852, 0.929688, -1., 0.98538\}, \{0.865386, 0.71196, -2.58852, 0.929688\}, \{0.865386, 0.86538, 0.929688, -1., 0.98538\}, \{0.865386, 0.71196, -2.58852, 0.929688, -1., 0.98538\}, \{0.865386, 0.71196, -2.58852, 0.929688, -1., 0.98538\}, \{0.865386, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.985388, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.98538, 0.985
                                                                    \{0.581789, 0.82, -1.38493, 0.98\}, \{1.02859, 0.667072, -1.82269, 0.9553\}, \{0.475929, 0.82, -1.18614, 0.989632\}\}
       In[28]:= Total[abg23[[34]] a2[[3]][[34]]]
 Out[28]= 1.
       , -2.96059 \times 10^{-16} 
Out[53]= {
                                                       TOTALS;
        |n|52|= {{BarChart[Total[abg+abg2+abg23], ImageSize→300, ChartStyle→{Yellow, Red, Blue, Green}], (diff+diff2+diff23)/3}}
                                                                             150
                                                                             100
```



WEIGHTS FOR DIFFERENT FLOWER TYPES;

```
\log 2 = \{BarChart[Total[abg], ImageSize \rightarrow 300, ChartStyle \rightarrow \{Yellow, Red, Blue, Green\}, ChartLabels \rightarrow \{"w1", "w2", "w3", "w4"\}, \}
                                                                \texttt{PlotLabel} \rightarrow \texttt{"IRIS SETOSA"], BarChart[Total[abg2], ImageSize} \rightarrow \texttt{300, ChartLabels} \rightarrow \texttt{"w1", "w2", "w3", "w4"}, \texttt{w4"}, \texttt{w2", w3", w4"}, \texttt{w4"}, \texttt{w2", w3", w4"}, \texttt{w4"}, \texttt{w50}, \texttt{
                                                               ChartStyle \rightarrow \{Yellow, Red, Blue, Green\}, PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], BarChart[Total[abg23], ImageSize \rightarrow 300, Red, Blue, Green], PlotLabel \rightarrow "IRIS VERSICOLOR"], PlotLabel \rightarrow "IRIS VERSICOLOR"]
                                                               ChartLabels \rightarrow \{"w1", "w2", "w3", "w4"\}, ChartStyle \rightarrow \{Yellow, Red, Blue, Green\}, PlotLabel \rightarrow "IRIS VIRGINICA"]\}
                                                                                                                                                                                          IRIS SETOSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IRIS VERSICOLOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IRIS VIRGINICA
                                                                                                                                                                                                                                                                                                                                                                                                                           50
                                                            40
                                                                                                                                                                                                                                                                                                                                                                                                                           30
                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              w1
Out[33]=
                                                                                                                                                                                      w2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        w2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               w4
                                                                                                                                                                                                                                                                                                                                                                                                                       -10
     ln[35] = z = Total[Total[abg a2[[#]]]] / 50 & /@ {1, 2, 3}
 Out[35]= \{1., 3.99619, 5.73853\}
     ln[36] = z2 = Total[Total[abg2 a2[[#]]]] / 50 & /@ {1, 2, 3}
Out[36]= \{1.1236, 1., 1.6582\}
    ln[37] = z3 = Total[Total[abg23 a2[[#]]]] / 50 & @ {1, 2, 3}
Out[37]= \{7.31617, 2.42879, 1.\}
                                            ACTIVATION FUNCTION; OUTPUT;
       In[39]:= thre = 1;
     \log \left( \frac{1}{2} + \frac{1}{2} - \frac{1}{2} \right) = \frac{1}{2} - \frac{1}{2} - \frac{1}{2} = \frac{1}{2} = \frac{1}{2} - \frac{1}{2} = \frac{1}{2} - \frac{1}{2} = \frac{1}{2} - \frac{1}{2} = \frac{1}{2} - \frac{1}{2} = \frac{1}{2} = \frac{1}{2} - \frac{1}{2} = \frac{1}{2} = \frac{1}{2} - \frac{1}{2} = \frac{1}{2
 {\tiny \texttt{Out[40]=}} \ \left\{ \, \left\{ \, \textbf{0.269542, 0.018271, 0.00326566} \right\}, \ \left\{ \, \textbf{1, 0, 0} \right\} \, \right\}
     \label{eq:local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_
 Out[41]= \{\{0.245979, 0.269542, 0.160685\}, \{0, 1, 0\}\}
     \label{eq:local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_
 Out[42]= \{\{0.000679244, 0.0815572, 0.269542\}, \{0, 0, 1\}\}
    log_{[44]:=} BarChart[Mean[a2[[#]]] & /@ {1, 2, 3}, ChartLayout \rightarrow "Stepped", ChartStyle \rightarrow {Yellow, Red, Blue, Green},
                                                     ChartLegends → {"Sepal Length", "Sepal Width", "Petal Length", "Petal Width"}]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sepal Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sepal Width
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Petal Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Petal Width
     In[45]:= SIGMOID;
     ln[46]:= 1 / (1 + 2.71^- + \#) & /@ {1, 2, 3}
  Out[46]= \{0.730458, 0.880155, 0.952159\}
     ln[47] := mm = 3;
     In[48]:= Manipulate
                                                         \left\{ \text{Show} \left[ \text{Graphics} \left[ \left\{ \text{Red, Disk} \left[ \left\{ 25 + \text{mm, 1 / (1 + 2.71^- - \text{mm})} \right\}, .4 \right] \right\}, \right. \right. \right. \right. \right\} \right\}, \\ \left. \left\{ \text{Show} \left[ \text{Graphics} \left[ \left\{ \text{Red, Disk} \left[ \left\{ 25 + \text{mm, 1 / (1 + 2.71^- - \text{mm})} \right\}, .4 \right] \right\}, \right] \right\} \right] \right\}, \\ \left. \left\{ \text{Show} \left[ \text{Graphics} \left[ \left\{ \text{Red, Disk} \left[ \left\{ 25 + \text{mm, 1 / (1 + 2.71^- - \text{mm})} \right\}, .4 \right] \right\}, \right] \right\} \right] \right\}, \\ \left. \left\{ \text{Show} \left[ \text{Graphics} \left[ \left\{ \text{Red, Disk} \left[ \left\{ 25 + \text{mm, 1 / (1 + 2.71^- - \text{mm})}, 1 + 1.5 \right\}, \right], \right] \right] \right\} \right] \right\} \right\} \right\} \right\} \right\} 
                                                                         \texttt{ListLinePlot[1/(1+2.71^-\#) \& /@Table[k, \{k, -50, 50, 2\}], ImageSize} \rightarrow 500, \ \texttt{PlotRange} \rightarrow \{\{-1, 40\}, \{-1, 1.5\}\}] \ ], \\  \texttt{ImageSize} \rightarrow \texttt{Soo}, \ \texttt{PlotRange} \rightarrow \{\{-1, 40\}, \{-1, 1.5\}\}\} \ ] \ ], \\ \texttt{ImageSize} \rightarrow \texttt{Soo}, \ \texttt{PlotRange} \rightarrow \{\{-1, 40\}, \{-1, 1.5\}\}\} \ ] \ ], \\ \texttt{ImageSize} \rightarrow \texttt{Soo}, \ \texttt{PlotRange} \rightarrow \{\{-1, 40\}, \{-1, 1.5\}\}\} \ ] \ ], \\ \texttt{ImageSize} \rightarrow \texttt{Soo}, \ \texttt{PlotRange} \rightarrow \{\{-1, 40\}, \{-1, 1.5\}\}\} \ ] \ ], \\ \texttt{ImageSize} \rightarrow \texttt{Soo}, \ \texttt{PlotRange} \rightarrow \{\{-1, 40\}, \{-1, 1.5\}\}\} \ ]
                                                               \mathtt{SetAccuracy[1/(1+2.71^{-}-mm)\,,\,30]}\big\},\,\{kk,\,0,\,5000,\,1\}\big]
Out[48]=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , 0.95215885785205423008648040195
```

## In[49]:= **HYPERBOLIC TANGENT**;

In[50]:= Tanh[1.1]

Out[50]= 0.800499

#### In[51]:= Manipulate[

