$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \ D_2 \ D_3 \ D_4 \ D_5 \ D_6 \ D_7 \ D_8 \ D_9 \ D_{10} D_{11} D_{12} D_{13} D_{14} D_{15} D_{16} D_{17} D_{18} D_{19} D_{20}}$$

$$\boxed{\text{Test Set}} \qquad \qquad \text{Training Set}$$

$$E_q = 5.1$$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

$$\boxed{T_1 \mid \dots \mid S_{14} \mid T_{14} \mid S_{14} \mid T_{15} \mid S_{14} \mid T_{15} \mid S_{14} \mid S_{1$$

Training Set Test Set Training Set
5-fold cross-validation

5-fold cross-validation $E_{a}= 3.7$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$
Training Set.

Test Set.

Training Set.

4.6

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \ D_2 \ D_3 \ D_4 \ D_5 \ D_6 \ D_7 \ D_8 \ D_9 \ D_{10} \ D_{11} \ D_{12} \ D_{13} \ D_{14} \ D_{15} \ D_{16} \ D_{17} \ D_{18} \ D_{19} \ D_{20}}$$
Training Set
$$\boxed{\text{Test Set}} \quad \text{Training Set}$$

 $E_a = 4.6$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$
Training Set.

Test Set

 $E_a =$ 3.3

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

$$\langle Z_a \rangle = \frac{5.1}{2.0} + \frac{3.7}{2.0} + \frac{4.6}{2.0} + \frac{4.6}{2.0} + \frac{3.3}{2.0} = 0$$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$
Test Set
$$\text{Training Set}$$

 $E_q = 5.4$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \ D_2 \ D_3 \ D_4 \ D_5 \ D_6 \ D_7 \ D_8 \ D_9 \ D_{10} \ D_{11} \ D_{12} \ D_{13} \ D_{14} \ D_{15} \ D_{16} \ D_{17} \ D_{18} \ D_{19} \ D_{20}}$$
Test Set
$$\text{Training Set}$$

$$E_q =$$
 1

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$
Training Set Test Set
$$\text{Training Set}$$

10-fold cross-validation

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$
Training Set
$$\boxed{\text{Test Set}} \qquad \text{Training Set}$$

3.2 $E_a =$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

 $E_a = 0.59$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \ D_2 \ D_3 \ D_4 \ D_5 \ D_6 \ D_7 \ D_8 \ D_9 \ D_{10} D_{11} D_{12} D_{13} D_{14} \frac{D_{15} D_{16}}{D_{15} D_{16}} D_{17} D_{18} D_{19} D_{20}}$$
Training Set
$$\boxed{\text{Test Set Training Set}}$$

$$E_a =$$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$
Training Set
$$\boxed{\text{Test Set}}$$

5.8 $E_a =$

$$\mathcal{D} = \{D_i\}_{i=1}^{P} \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \ D_2 \ D_3 \ D_4 \ D_5 \ D_6 \ D_7 \ D_8 \ D_9 \ D_{10} \ D_{11} \ D_{12} \ D_{13} \ D_{14} \ D_{15} \ D_{16} \ D_{17} \ D_{18} \ D_{19} \ D_{20}}$$

$$\text{Training Set} \qquad \qquad \text{Test Set}$$

$$10\text{-fold cross-validation}$$

 $E_g =$ 2.3

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

$$\langle E_q \rangle = \frac{5.4 + 1.4 + 4.4 + 3.2 + 7 + 0.59 + 4.1 + 5 + 5.8 + 2.3}{10} = 3.9$$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \quad D_2 \quad D_3 \quad D_4 \quad D_5 \quad D_6 \quad D_7 \quad D_8 \quad D_9 \quad D_{10} \quad D_{11} \quad D_{12} \quad D_{13} \quad D_{14} \quad D_{15} \quad D_{16} \quad D_{17} \quad D_{18} \quad D_{19} \quad D_{20}}$$

Test

Leave-one-out cross-validation

$$E_g = 4.2$$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \quad D_2 \quad D_3 \quad D_4 \quad D_5 \quad D_6 \quad D_7 \quad D_8 \quad D_9 \quad D_{10} \quad D_{11} \quad D_{12} \quad D_{13} \quad D_{14} \quad D_{15} \quad D_{16} \quad D_{17} \quad D_{18} \quad D_{19} \quad D_{20}}$$

2.9 $E_a =$

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

Leave-one-out cross-validation

 $E_a =$

Test

4.2

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

Leave-one-out cross-validation

 $E_a =$

Test

1.4

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$
Test

Leave-one-out cross-validation

$$E_{a}=$$
 3

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$
That

3.7

Test Leave-one-out cross-validation

$$\mathcal{D} = \{D_i\}_{i=1}^P \quad D_i = (\mathbf{x}_i, y_i)$$

$$\boxed{D_1 \mid D_2 \mid D_3 \mid D_4 \mid D_5 \mid D_6 \mid D_7 \mid D_8 \mid D_9 \mid D_{10} \mid D_{11} \mid D_{12} \mid D_{13} \mid D_{14} \mid D_{15} \mid D_{16} \mid D_{17} \mid D_{18} \mid D_{19} \mid D_{20}}$$

$$\langle E_g \rangle = 3.98$$