Lesson 10-5

# Mean Absolute Deviation

1. Find the mean absolute deviation of the data set.

| Maximum Speeds (mph) | | | |
|---|---|---|---|
| 58 | 88 | 40 | 60 |
| 72 | 66 | 80 | 48 |

Solution:

| Maximum Speeds (mph) | Distance between each data value and the mean. |
|---|---|
| 58 | |
| 88 | |
| 40 | |
| 60 | |
| 72 | |
| 66 | |
| 80 | |
| 48 | |
| Sum = | |

Mean = ——— =

The mean absolute deviation is

2. The table shows the number of daily visitors to a website on the Internet. Find the mean absolute deviation of the data set. Explain what the mean absolute deviation represents.

| Number of Daily Visitors | | | | | |
|---|---|---|---|---|---|
| 112 | 145 | 108 | 160 | 122 | |

Solution:

| Number of Daily Visitors | Distance between each data value and the mean. |
|---|---|
| 112 | |
| 145 | |
| 108 | |
| 160 | |
| 122 | |
| Sum = | |

Mean = ——— =

The mean absolute deviation is

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3. The table shows the number of sunny days in various U.S. cities in the last month. Find the mean absolute deviation. Explain what the mean absolute deviation represents.

| Number of Sunny Days in Various Cities Last Month | | | |
|---|---|---|---|
| 15 | 27 | 10 | 19 |
| 24 | 21 | 28 | 16 |

Solution:

| Number of Sunny Days | Distance between each data value and the mean. |
|---|---|
| 15 | |
| 27 | |
| 10 | |
| 19 | |
| 24 | |
| 21 | |
| 28 | |
| 16 | |
| Sum = | |

Mean = ——— =

The mean absolute deviation is

4. The table shows the number of flowers sold by each sixth grade homeroom. Find the mean absolute deviation. Explain what the mean absolute deviation represents.

| Number of Flowers Sold | | | | |
|---|---|---|---|---|
| 75 | 89 | 80 | 145 | 85 |
| 60 | 92 | 104 | 90 | 100 |

Solution:

| Number of Sunny Days | Distance between each data value and the mean. |
|---|---|
| 75 | |
| 89 | |
| 80 | |
| 145 | |
| 85 | |
| 60 | |
| 92 | |
| 104 | |
| 90 | |
| 100 | |
| Sum = | |

Mean = ——— =

The mean absolute deviation is

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