Name _____

Outlier Impact Answer Key

1. Mean before: 10; Mean after: 12; Increased by 2.
2. Mean before: 16; Mean after: 14; Decreased by 2.
3. Mean before: 20; Mean after: 22; Increased by 2.
4. Mean before: 26; Mean after: 24; Decreased by 2.
5. Mean before: 32; Mean after: 34; Increased by 2.
6. Mean before: 40; Mean after: 38; Decreased by 2.

Teacher's Guide

- Quick implementation: Review that an outlier is a value that is unusually far from the other values in a data set. Have students calculate both means before comparing them.
- Quick implementation: Ask students to predict whether each outlier will raise or lower the mean before calculating.
- Differentiation: Have students find and record the original sum first, then add the outlier and divide by the new number of values.
- Differentiation: For additional support, let students circle the outlier and label it "high" or "low" before solving.
- Engagement: Have students cover the outlier at first, calculate the original mean, then reveal the outlier and predict its effect.
- Extension: Ask students to replace an outlier with an even more extreme value and calculate the resulting mean.
- Extension: Have students explain why a high outlier tends to pull the mean upward while a low outlier tends to pull it downward.

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