Build Tasks

Find Q_1, Q_2, and Q_3 using the exclusive method, then IQR $= Q_3 - Q_1$.

1. Find Q_1, Q_2, Q_3, and the IQR for: 8, 10, 13, 15, 18, 21, 24.

2. Find Q_1, Q_2, Q_3, and the IQR for: 5, 7, 9, 12, 14, 16, 19, 22.

3. Find Q_1, Q_2, Q_3, and the IQR for: 12, 14, 17, 19, 21, 24, 27, 30, 32.

4. Find Q_1, Q_2, Q_3, and the IQR for: 6, 9, 11, 14, 18, 20, 23, 27.

5. Find Q_1, Q_2, Q_3, and the IQR for: 4, 8, 10, 13, 17, 19, 21, 25.

6. Find Q_1, Q_2, Q_3, and the IQR for: 9, 12, 14, 16, 18, 20, 24, 28.

Build Tasks

A box plot shows the five-number summary. Use it to find the IQR, or to compare two distributions.

7. Box plot: min 3, $Q_1 = 9$, median 12, $Q_3 = 18$, max 25. Find the IQR.

8. Box plot: min 10, $Q_1 = 16$, median 20, $Q_3 = 29$, max 35. Find the IQR and the range.

9. Which set has the larger IQR? A: $Q_1 = 12$, $Q_3 = 20$. B: $Q_1 = 15$, $Q_3 = 28$.

10. One quarter of the data lies below 18. Which quartile is 18?

11. Three quarters of the data lies below 42. Which quartile is 42?

12. If $Q_1 = 9$ and $Q_3 = 18$, state the interval that contains the middle half of the data.

Build Tasks

The five-number summary is minimum, Q_1, median, Q_3, maximum, in that order.

13. If $Q_1 = 16$ and $Q_3 = 29$, state the interval that contains the middle half of the data.

14. Five-number summary: 4, 10, 13, 17, 24. Find the IQR.

15. Five-number summary: 12, 15, 19, 26, 31. Find the IQR and the range.

16. Which set is more consistent (smaller IQR)? A: IQR 6. B: IQR 12.