Quartiles for Ungrouped Data

Total points = 25

17	20	23	25	28	28	32	32	35	37	
41	46	47	48	51	52	55	55	56	60	✓

$n = 20$ ✓

1. $Q_2 = \frac{2}{4}(n+1)_{th}$ ✓

   $Q_2 = \frac{1}{2}(20+1)_{th}$ ✓

   $Q_2 = \frac{1}{2}(21)_{th}$ ✓

   $Q_2 = 10.5_{th}$ ✓

   $Q_2 = 37 + (0.5)(41 - 37)$ ✓

   $Q_2 = 37 + 2$ ✓

   $Q_2 = 39$ ✓

2. $Q_3 = \frac{3}{4}(n+1)_{th}$ ✓

   $Q_3 = \frac{3}{4}(20+1)_{th}$ ✓

   $Q_3 = \frac{3}{4}(21)_{th}$ ✓

   $Q_3 = 15.75_{th}$ ✓

   $Q_3 = 51 + (0.75)(52 - 51)$ ✓

   $Q_3 = 51 + 0.75$ ✓

   $Q_3 = 51.75$ ✓

3. $Q_1 = \frac{1}{4}(n+1)_{th}$ ✓

   $Q_1 = \frac{1}{4}(20+1)_{th}$ ✓

   $Q_1 = \frac{1}{4}(20+1)_{th}$ ✓

   $Q_1 = 5.25_{th}$ ✓

   $Q_1 = 28 + (0.25)(25 - 25)$ ✓

   $Q_1 = 28$ ✓

4. $IQR = Q_3 - Q_1$ ✓

   $IQR = 51.75 - 28$ ✓

   $IQR = 23.75$ ✓

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