Quartiles for Ungrouped Data Total points = 25

1.
$$Q_2 = \frac{2}{4}(n+1)_{th} \checkmark$$

 $Q_2 = \frac{1}{2}(20+1)_{th} \checkmark$
 $Q_2 = \frac{1}{2}(21)_{th} \checkmark$

$$Q_2 = \frac{1}{2}(21)_{th} \checkmark$$

$$Q_2 = 10.5_{th} \checkmark$$

 $Q_2 = 37 + (0.5)(41 - 37) \checkmark$

$$Q_2 = 37 + 2\checkmark$$

$$Q_2 = 39$$
 \checkmark

2.
$$Q_3 = \frac{3}{4}(n+1)_{th} \checkmark$$

$$Q_{3} = \frac{3}{4}(20+1)_{th} \checkmark$$

$$Q_{3} = \frac{3}{4}(21)_{th} \checkmark$$

$$Q_{3} = 15.75_{th} \checkmark$$

$$Q_3 = \frac{3}{4}(21)_{th}$$
 v

$$Q_3 = 13.73_{th}$$

 $Q_2 = 51 + (0.75)(5)$

$$Q_3 = 51 + (0.75)(52 - 51)\checkmark$$

 $Q_3 = 51 + 0.75\checkmark$

$$Q_3 = 51.75 \checkmark$$

3.
$$Q_1 = \frac{1}{4}(n+1)_{th} \checkmark$$

$$Q_1 = \frac{1}{4}(20+1)_{th} \checkmark$$

$$Q_1 = \frac{1}{4}(20+1)_{th} \checkmark$$

$$Q_1 = \frac{1}{4}(20+1)_{th} \checkmark$$

$$Q_1 = 5.25_{th} \checkmark$$

$$Q_1 = 5.25_{th} \checkmark$$

$$Q_1 = 28 + (0.25)(25 - 25)$$

$$Q_1 = 28 \checkmark$$

4.
$$IQR = Q_3 - Q_1 \checkmark$$

$$IQR = 51.75 - 28 \checkmark$$

Quartiles for Ungrouped Data Total points = 25

28

52

32

55

32

55

35

56

37

60

Quartiles for Ungrouped Data Total points = 25

Quartiles for Ungrouped Data Total points = 25

52

55

55

56

37

60

48

1.
$$Q_2 = \frac{2}{4}(n+1)_{th} \checkmark$$

46

$$Q_2 = \frac{1}{2}(20+1)_{th} \checkmark$$

$$Q_2 = \frac{1}{2}(21)_{th} \checkmark$$

$$Q_2 = 10.5_{th} \checkmark$$

47

$$Q_2 = \frac{1}{2}(21)_{th}$$

$$Q_2 = \frac{2}{10} 5 4 \sqrt{2}$$

$$Q_2 = 37 + (0.5)(41 - 37)$$

$$Q_2 = 37 + 2\checkmark$$

$$Q_2 = 39$$

$$Q_2 = 39 \checkmark$$

2. $Q_3 = \frac{3}{4}(n+1)_{th} \checkmark$

$$Q_3 = \frac{3}{4}(20+1)_{th} \checkmark$$

$$Q_3 = \frac{3}{4}(21)_{th} \checkmark$$

$$Q_3 = \frac{1}{4}(21)_{th}$$

$$Q_3 = 15.75_{th} \checkmark$$

$$Q_3 = 51 + (0.75)(52 - 51)\checkmark$$

$$Q_3 = 51 + 0.75$$

$$Q_3 = 51.75 \checkmark$$

3.
$$Q_1 = \frac{1}{4}(n+1)_{th} \checkmark$$

$$Q_{1} = \frac{1}{4}(20+1)_{th} \checkmark$$

$$Q_{1} = \frac{1}{4}(20+1)_{th} \checkmark$$

$$Q_{1} = 5.25_{th} \checkmark$$

$$Q_1 = \frac{1}{4}(20+1)_{th}$$

$$Q_1 = 28 + (0.25)(25 - 25)$$

$$Q_1 = 28 \checkmark$$

4.
$$IQR = Q_3 - Q_1 \checkmark$$

$$IQR = 51.75 - 28 \checkmark$$

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

17

41 46

n = 20 ✓

20

23

47

 $=\frac{1}{2}(20+1)_{th}$

 $Q_2 = 37 + (0.5)(41 - 37)$

 $Q_3 = 51 + (0.75)(52 - 51)$

 $Q_1 = 28 + (0.25)(25 - 25)$

1. $Q_2 = \frac{2}{4}(n+1)_{th} \checkmark$

 $Q_2 = \frac{1}{2}(21)_{th} \checkmark$

 $Q_2 = 10.5_{th} \checkmark$

 $Q_2 = 37 + 2$

 $Q_{2} = 39 \checkmark$ 2. $Q_{3} = \frac{3}{4}(n+1)_{th} \checkmark$ $Q_{3} = \frac{3}{4}(20+1)_{th} \checkmark$ $Q_{3} = \frac{3}{4}(21)_{th} \checkmark$ $Q_{3} = 15.75_{th} \checkmark$

 $Q_3 = 51 + 0.75$

3. $Q_1 = \frac{1}{4}(n+1)_{th} \checkmark$

 $Q_{1} = \frac{1}{4}(20+1)_{th} \checkmark$ $Q_{1} = \frac{1}{4}(20+1)_{th} \checkmark$

 $Q_3 = 51.75 \checkmark$

 $Q_1 = \frac{1}{4}(207)^{1/2}$ $Q_1 = 5.25_{th} \checkmark$

4. $IQR = Q_3 - Q_1 \checkmark$

IQR = 23.75 ✓

 $IQR = 51.75 - 28 \checkmark$

 $Q_1 = 28 \checkmark$

 $Q_2 = 39$ \checkmark

25

28

51

1.
$$Q_2 = \frac{2}{4}(n+1)_{th} \checkmark$$

$$Q_{2} = \frac{1}{2}(20+1)_{th} \checkmark$$

$$Q_{2} = \frac{1}{2}(21)_{th} \checkmark$$

$$Q_{2} = \frac{1}{2}(21)_{th} \checkmark$$

$$Q_{2} = \frac{1}{2}(21)_{th} \checkmark$$

$$Q_2 = \frac{1}{2}(21)_{th} \checkmark$$

$$Q_2 = \frac{1}{2}(21)_{th}$$

$$Q_2 = 37 + (0.5)(41 - 37)$$

$$Q_2=37+2\checkmark$$

$$Q_2 = 39$$

$$Q_2 = 39 \checkmark 2. Q_3 = \frac{3}{4}(n+1)_{th} \checkmark$$

$$Q_{3} = \frac{3}{4}(20+1)_{th} \checkmark$$

$$Q_{3} = \frac{3}{4}(21)_{th} \checkmark$$

$$Q_{3} = 15.75_{th} \checkmark$$

$$Q_3 = \frac{3}{4}(21)_{th} \checkmark$$

$$Q_3 = 15.75_{th} \checkmark$$

$$Q_3 = 51 + (0.75)(52 - 51)$$

$$Q_3 = 51 + 0.75$$

$$Q_3 = 51.75 \checkmark$$

3.
$$Q_1 = \frac{1}{4}(n+1)_{th} \checkmark$$

$$Q_1 = \frac{1}{4}(20+1)_{th} \checkmark$$

$$Q_1 = \frac{1}{4}(20+1)_{th} \checkmark Q_1 = 5.25_{th} \checkmark$$

$$Q_1 = 5.25 4.$$

$$Q_1 = 28 + (0.25)(25 - 25)$$

$$Q_1=28\checkmark$$

4.
$$IQR = Q_3 - Q_1 \checkmark$$

$$IQR = 51.75 - 28$$
 \checkmark

$$IQR = 23.75 \ \checkmark$$