

# Outcome 1 - Semi interquartile range

## Bronze example

### Examples...

Calculate the semi-interquartile range for the list of numbers below:-

20, 21, 21, 22, 23, 25, 28, 30, 31, 33, 34

Five figure summary...

$$L = 20$$

$$Q_1 = 21$$

$$Q_2 = 25$$

$$Q_3 = 31$$

$$H = 34$$

$$\text{Semi I.R.} = (Q_3 - Q_1) \div 2$$

$$(31 - 21) \div 2 = 5$$



## Silver example

### Examples...

Calculate the semi-interquartile range for the list of numbers below:-

33, 34, 35, 37, 38, 39, 40, 42, 44, 45

Five figure summary...

$$L = 33$$

$$Q_1 = 35$$

$$Q_2 = 38.5$$

$$Q_3 = 42$$

$$H = 45$$

$$\text{Semi I.R.} = (Q_3 - Q_1) \div 2$$

$$(42 - 35) \div 2 = 3.5$$



## Gold example

### Examples...

Calculate the semi-interquartile range for the list of numbers below:-

31, 34, 35, 38, 38, 39, 41, 44.

Five figure summary...

$$L = 31$$

$$Q_1 = 34.5$$

$$Q_2 = 38$$

$$Q_3 = 40$$

$$H = 44$$

$$\text{Semi I.R.} = (Q_3 - Q_1) \div 2$$

$$(40 - 34.5) \div 2 = 2.75$$



## Bronze Questions

Calculate the semi-interquartile range for the following data sets...



1 2, 6, 7, 10, 12, 14, 15

2 47, 35, 32, 41, 33, 48, 37

3 71, 74, 69, 63, 65, 70, 75

4 91, 88, 95, 79, 83, 94, 91, 82, 76, 93, 87

5 51, 49, 52, 50, 56, 46, 48, 41, 49, 58, 43

6 14, 18, 23, 27, 15, 17, 21, 12, 20, 19, 24

## Silver Questions

Calculate the semi-interquartile range for the following data sets...



1 3, 5, 9, 11, 15, 17

2 52, 57, 55, 53, 61, 58

3 87, 81, 86, 82, 90, 89

4 28, 22, 26, 19, 27, 29, 18, 30, 25, 21

5 77, 72, 78, 74, 75, 70, 79, 71, 69, 76

6 99, 95, 92, 90, 93, 98, 93, 94, 97, 95

## Gold Questions

Calculate the semi-interquartile range for the following data sets...



1 3, 5, 7, 8, 9, 12, 14, 15

2 65, 62, 67, 60, 68, 63, 64, 70

3 23, 25, 21, 20, 28, 30, 29, 19

4 48, 41, 39, 45, 48, 51, 46, 37

5 86, 82, 89, 85, 81, 80, 83, 78

6 111, 115, 112, 116, 118, 119, 108, 117

**Bronze Answers**

1.  $(14 - 6) \div 2 = 4$       2.  $(47 - 33) \div 2 = 7$   
3.  $(74 - 65) \div 2 = 4.5$       4.  $(93 - 82) \div 2 = 5.5$   
5.  $(52 - 46) \div 2 = 3$       6.  $(23 - 15) \div 2 = 4$

**Silver Answers**

1.  $(15 - 5) \div 2 = 5$       2.  $(58 - 53) \div 2 = 2.5$   
3.  $(89 - 82) \div 2 = 3.5$       4.  $(28 - 21) \div 2 = 3.5$   
5.  $(77 - 71) \div 2 = 3$       6.  $(97 - 93) \div 2 = 2$

**Gold Answers**

1.  $(13 - 6) \div 2 = 3.5$       2.  $(67.5 - 62.5) \div 2 = 2.5$   
3.  $(28.5 - 20.5) \div 2 = 4$       4.  $(48 - 40) \div 2 = 4$   
5.  $(117.5 - 111.5) \div 2 = 3$       6.  $(39.5 - 35.5) \div 2 = 2$