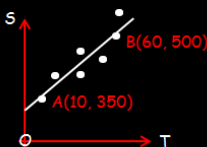


Outcome 3 - Scatter graphs

Bronze example

Examples...

Calculate the equation of the line of best fit for the following scatter graph.



$$m = \frac{500 - 350}{60 - 10} = \frac{150}{50} = 3$$

1. Find the gradient
2. Sub into $y - b = m(x - a)$
3. Use correct letters!

$$y - 350 = 3(x - 10)$$

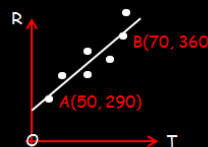
$$y = 3x + 320$$

$S = 3T + 320$

Silver example

Examples...

Calculate the equation of the line of best fit for the following scatter graph.



$$m = \frac{360 - 290}{70 - 50} = \frac{70}{20} = 3.5$$

1. Find the gradient
2. Sub into $y - b = m(x - a)$
3. Use correct letters!

$$y - 290 = 3.5(x - 50)$$

$$y = 3.5x + 115$$

$R = 3.5T + 115$

Gold example

Examples...

A line of best fit has equation $P = 3.5L + 56$.

Calculate P when L = 42. ****Sub into formula****

$$P = 3.5 \times 42 + 56 = 203$$

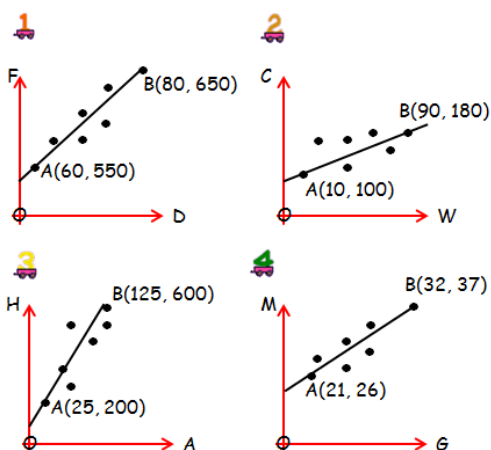
A line of best fit has equation $C = 7F + 24$.

Calculate F when C = 66. ****Sub into formula****

$$66 = 7 \times F + 24 \quad 7F = 42 \quad F = 6$$

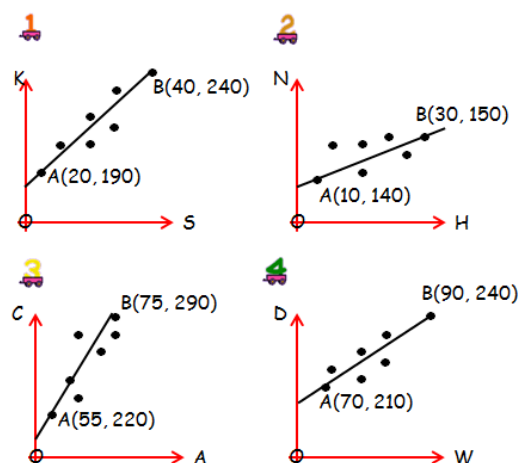
Bronze Questions

Calculate the equation of the line of best fit for the following scatter graphs...



Silver Questions

Calculate the equation of the line of best fit for the following scatter graphs...



Gold Questions

1 A line of best fit has equation $K = 9H + 73$.

Calculate K when H = 6.

2 A line of best fit has equation $W = 4.5Q + 92$.

Calculate W when Q = 22.

3 A line of best fit has equation $R = 8M + 17$.

Calculate M when R = 241.

4 A line of best fit has equation $A = 5.5P + 41$.

Calculate P when A = 107.

Bronze Answers

1. $F = 5D + 250$

2. $C = W + 90$

3. $H = 4A + 100$

4. $M = B + 5$

Silver Answers

1. $K = 2·5S + 140$

2. $N = 0·5H + 135$

3. $C = 3·5A + 27·5$

4. $D = 1·5W + 105$

Gold Answers

1. $K = 127$

2. $W = 191$

3. $M = 28$

4. $P = 12$