

Homework 17

Hand in: _____

Do not use a calculator for questions 1-6. You must show all your working out where the question number is **underlined**. For these questions stating an answer without showing a written method will not score a mark.

<p><u>1.</u> Three sevenths of an amount is 21. What is the amount?</p>	<p><u>2.</u> Calculate the product of 2.4 and 0.8.</p>
<p>3. Expand the brackets and simplify; $p(p + 4) + 2p(3p + 1)$</p>	<p><u>4.</u> 11 out of 30 people prefer maths. What angle should represent them on a pie chart?</p>

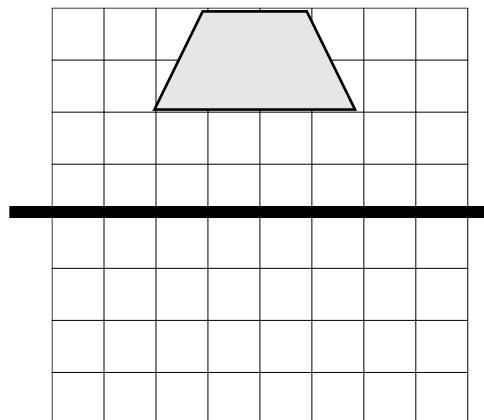
5. Write 0.675 as a fraction in its simplest form

6. Write these numbers in descending order.

125%, 2.5, $\frac{4}{3}$

7. Decrease 540 by 72%

8. Reflect the shape in the mirror line.



9. Complete the sets of coordinates using the equation $y = x^2 - 5$

(4,____) (____,95)

10. Calculate the midpoint of 99 and 301

Gold:

For each set of data below you are given the mean.
Find the missing value which completes each set of data.

mean

$$9, 10, 15, x \qquad \qquad \qquad \text{mean} \qquad \qquad \qquad x = 12$$

$$10, 12, 14, 17, x \qquad \qquad \qquad \text{mean} \qquad \qquad \qquad x = 15$$

$$5, 0, 9, 2, 8, 3, x \qquad \qquad \qquad \text{mean} \qquad \qquad \qquad x = 7$$

$$2, 7, 13, 18, x, x \qquad \qquad \qquad \text{mean} \qquad \qquad \qquad x = 10$$

$$4, 2, 12, x \qquad \qquad \qquad \text{mean} \qquad \qquad \qquad x = 4.5$$

A set of 5 pieces of data has a mean of 20. A sixth piece of data is collected. Its value is 20. What effect does this have on the mean?

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Silver:

Work out the mean for these sets of data;

1. 3, 5, 7, 9

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2. 4, 4, 5, 7, 9

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3. 12, 14, 16, 18, 20

.....

Write a set of 5 pieces of data that has a mean of 6.

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Write a set of 5 pieces of data with a mean of 6, a mode of 5 and a range of 6.

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Bronze:

For each set of data find the mode, median and range;

Data	Mode	Median	Range
1, 2, 4, 5, 5			
3, 7, 7, 8, 8, 10			
12, 4, 7, 2, 15, 11			
13, 17, 17, 18, 18, 20			

Write a set of 5 pieces of data with the following features;

Mode of 3 and range of 6 _____

Median of 11 range of 4 _____

Median of 6, mode of 9 and range of 5
