

# Homework 17

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

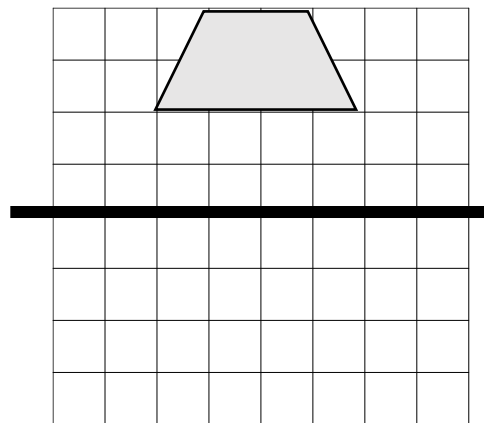
**5.** Write 0.675 as a fraction in its simplest form

**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	12	x =
10, 12, 14, 17, x	15	x =
5, 0, 9, 2, 8, 3, x	7	x =
2, 7, 13, 18, x, x	10	x =
4, 2, 12, x	4.5	x =

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

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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

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