

Homework 21

Hand in: _____

Do not use a calculator for questions 1-10. You must show all of your working out. You may need to look up definitions or ask for some extra help either at home or at school for some of these questions.

<p>1. Simplify;</p> $a + b + 2a + 3b$	<p>2. Expand the bracket by multiplying out;</p> $2(x + 4)$
<p>3. Substitute the values $a = 4$ and $b = 7$ into the expression,</p> $2a + b$	<p>4. Find the median, mode and range for this list of data</p> $2, 3, 5, 8, 11$ <p>Median Mode Range</p>

5. Calculate

$$\frac{3}{5} \text{ of } 35$$

6. Write the ratio below in its simplest form.

$$6 : 10$$

7. Equivalent FDP. Fill in the gaps

Fraction	Decimal	Percent
	0.45	

8. Find 15% of £40

9. A baker uses 350g of flour to make a cake. How much flour is needed to make 10 cakes?

10. Calculate

$$3 \times 4 + 6$$

Gold:

The angles of a triangle are in the ratio 2:7:3.

Work out the size of the smallest angle.

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The largest angle in a quadrilateral is 120

The other three angles are in the ratio 2:3:3

Find the sizes of these angles

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Silver:

Glass beads can be bought in large or small boxes. The ratio of the number of each colour of bead is the same on both sizes.

Two students are arguing over what the missing numbers in the table below should be.

	Green	Clear	Yellow
Small		24	10
Large	35	60	

Amy says that there are 15 green in the small box and 46 yellow in the large box.

Zak disagrees. He thinks there are 25 yellow beads in the large box and 14 Green in the small box.

Who is correct and how do you know?

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Bronze:

5 students count the number pens and pencils they have in their pencil cases.

- Abbie has 4 pens and 6 pencils,
- Ben has 8 pencils and 12 pens,
- Cate has 14 pens and 16 pencils
- Dani has 3 pencils and 2 pens
- And Ed has 7 pens and 9 pencils

Which students have the same ratio of pens to pencils?

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