## 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.

1. Simplify the expression	2. Circle the expression that means 'two lots of x'			
a + a + a	2x x2			
	x + 2 x <sup>2</sup>			
3. Work out 27 x 3	<ul><li>4. What is the mode for this set of data?</li><li>3, 5, 5, 8, 10</li></ul>			

5. Work out $\frac{1}{2}$ of 12	6. Circle the values that are equal to 0.5					
$\frac{1}{2}$ 0) 12	$\frac{1}{2}$		1 2	50%		
		5	%	1	5	
7. What is 10% of 40?	8. Which ratio is the same as 2 : 3?					ame
	3:4		4 : 6		4	:9
9. Work out 46 ÷ 2	10. V	0. What is 2.40 + 3.06?				

## Gold:

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 biox and 46 yellow in the large box.

Zak disagrees. He thinks there are 25 yellow beads in the large box and 35 Green in the small box.

Who is correct and how do you know?

## Silver:

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?

## **Bronze:**

Abbie has 8 more pens than Ben. Ben has 5 pens, how many pens does Abbie have?

.....

Cain has £5 more than Dani. They have £12 between them. How much money does Dani have?

.....