## Homework 21

Hand in: $\qquad$

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, $2 a b+4 a+3 a b$ | 2. Expand the bracket $3(2 x+7)$ |
| :---: | :---: |
| 3. Find the value of the expression when $\mathrm{a}=4$ and | 4. Write a set of 5 numbers which have a mean of 6 |
| $3 a+a b$ |  |


| 5. If $\frac{3}{4}$ of an amount is 12 . What is the amount? | 6. Equivalent FDP. Fill in the missing values. |  |  |
| :---: | :---: | :---: | :---: |
|  | Fraction | Decimal | Percentage |
|  |  | 1.2 |  |
| 7. Find $12.5 \%$ of 32 | 8. Share $£ 52$ in the ratio $10: 3$. |  |  |
| 9. A baker uses 350 g of flour to make a cake. How much flour is needed to make 10 cakes? | 10. Work out the value of;$(4+7) \times 2+3^{2}$ |  |  |

## Gold:

Andy owns a shop selling greetings cards. $56 \%$ of his takings are from birthday cards and the remainder of his income is from sales of wrapping paper, balloons and other items in the ratio 5:2:1.
Andy makes $£ 660$ more money from wrapping paper than balloons in a month. How much money per month does he make form the sale of greetings cards?
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Silver:

The angles of a triangle are in the ratio 2:7:3.
Work out the size of the smallest angle.

# The largest angle in a quadrilateral is 120 <br> The other three angles are in the ratio 2:3:3 <br> Find the sizes of these angles 

## Bronze:

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?

