## Homework 23

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; | 2. Expand the bracket by <br> multiplying out; <br> $4 a+5 b-3 a+2 b$ |
| :--- | :--- |
| 3. Substitute the values <br> $a=4$ and $b=7$ into the <br> expression, | 4. Find the median, mode <br> and range for this list of <br> data |
| $\qquad 10 a-5 b$ |  |
|  | Median $5,2,8,12$ <br> Mode <br> Range |



## Gold:

Which of the following 3 calculations gives the largest solution? You must show all of your working out. You may not use a calculator.
A: $7-4 \times\left(8-2^{2}\right)$

B: $\quad 7-4 \times(8-2)^{2}$
$\qquad$
$\qquad$

C: $\quad(7-4) \times(8-2)^{2}$

## Silver:

Alice, Ben and Charlie are given the following question:

$$
3+8 \times 12-3
$$

Alice says that the answer is 129, Ben disagrees and says that it is 96 . Charlie is certain that the answer is 99. Who is correct? Explain your answer.

## Bronze:

Circle the part of the calculation you should do first, you do not need to work out the answers:

| $(3+2) \times 5$ | $4+8 \times 2$ |
| :---: | :---: |
| $12 \div 4-2$ | $8+5^{2} \times 6-2$ |

Work out the answer to the following calculations. You must not use a calculator.


