HOME EXERCISE 4

Set out carefully all appropriate working.

Do **not** use a calculator in questions 1 to 5.
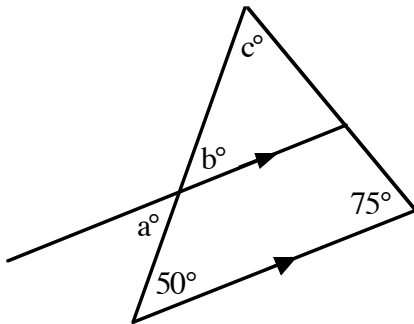Use a calculator in questions 6 and 7.

1. Evaluate: $\frac{5}{8} \times \frac{4}{9}$ (2)

2. If $a = 3$, $b = -4$ and $c = 5$, evaluate: $ab + c$ (2)

3. Solve for x: $5x = 2x + 21$ (2)

4.

The diagram shows two parallel lines as indicated and two angles of 50° and 75° in a triangle.

complementary angle
supplementary angle
corresponding angle
alternate angle
vertically opposite angle
angle sum in a triangle

Use the angles to find the values of a, b, and c. (1)
Give a reason with each answer from the list above. (3)

5. The normal price of a toaster is £30.
   In a sale the price is reduced to £24.

   Calculate the percentage reduction in the sale. (3)

6. A train travelled 300 kilometres at an average speed of 125 kilometres per hour.
   It left on its journey at 9 50 am.

   At what time did the train arrive at its destination? (4)

7. One **millilitre** of argon gas contains $2 \cdot 688 \times 10^{19}$ atoms.
   Calculate the number of atoms in 2 **litres** of argon gas. (3)

   Write your answer in **scientific notation** and correct to **3 significant figures**.

   Total 20 marks