

Starter

1. Find the following

a. 0.065×1000

b. $49 \div 700$

c. 1.27×300

2. Factorise

a. $7ef - 14e^2$

b. $12s^3 + 18st^2$

c. $24pq^2r^3 - 36p^2qr$

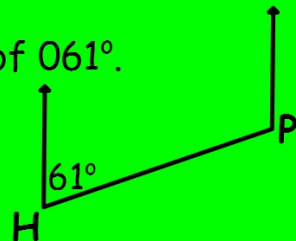
3. On page one in "Harry Potter and the Chamber of Secrets" there are 15 sentences, in "Lord of the Rings" there are 21.

a. Write the ratio in its simplest form.

b. The same ratio holds true throughout the book. If the Harry Potter book contains 450,000 sentences, how many sentences are there in Lord of the Rings?

4. A ship sails to an oil platform (P) on a bearing of 061° .

What bearing should it take to return back to the harbour (H)?



Starter

1. Find the following

a. 45% of £780

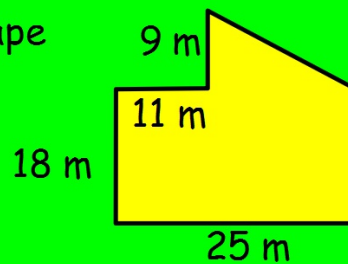
b. $\frac{2}{9}$ of 3213 km

2. Multiply out the brackets and simplify

a. $10(2x - 3) + 2(3x - 4)$

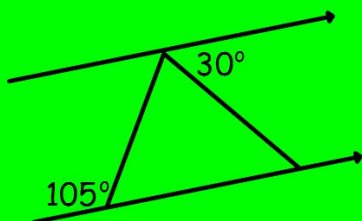
b. $8 - (x + 10) - 2(x - 1)$

3. Calculate the area of this shape

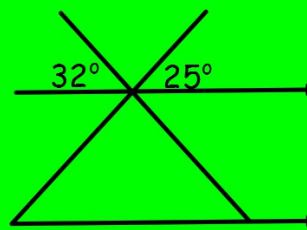


4. Fill in the missing angles

a.



b.



Starter

1. Find the following

a. $18.4 + 0.79 - 1.05$

b. 6000×0.856

2. Factorise

a. $9ab + 18ab^2$

b. $35x^4y^3 + 45xy^2$

c. $12fg^3h - 9f^2gh^2$

3. A wealthy businessman dies and leaves £270,000 in his will to be shared between his sons in the ratio of their ages.

Will is 25 years old, Duncan is 20 years old.

How much money will Duncan get?

4. Joe leaves camp and walks 5 km on a bearing of 125° .

What bearing should he take to return back to camp?

Starter

1. Find the following

a. 12.5% of \$4800

b. $\frac{8}{11}$ of 902 mL

2. Multiply out the brackets and simplify

a. $3(2x - 5) - 6(3x + 1)$

b. $5x - 2(x - 3) + 6(2x - 1) + 4$

3. 100 g of baked beans contains 4.5 g of protein.

How many kilograms of beans would provide a daily protein requirement of 81 g?

4. Solve the following equations

a. $4x - 11 = 10 - 3x$

b. $9 + 7y = 9y + 7$

c. $6z + 4 = 11 + 2z$

Starter

- Express 450 as a product of prime factors
- If $f = 6$, $g = 5$, and $h = (-4)$, evaluate the following expressions
 - $fh + 4g$
 - $(f - g)^2 - h$
 - gh^2
- An aeroplane has travelled on a bearing of 285° from Glasgow airport when a technical fault occurs requiring that it turns back.
On what bearing must it travel in order to return to the airport?
- Find an expression for the perimeter of this shape:
 - If the perimeter = 60 cm, find x .

