

Starter

1. Calculate

a. 19.3×7

b. $783.5 \div 5$

2. Convert the following

a. 56700 mm to m

b. 0.086 km to cm

c. 5.2 L to cm^3

3. Factorise

a. $6x - 24$

b. $15a - 5b$

c. $14xy + 35y^2$

4. The following table shows four blood groups and their frequency in a population.

a. What is the ratio of group O to group AB?

b. If there are 132 million people with type O blood, how many have blood type AB?

Blood Group	Frequency (%)
O	44
A	42
B	10
AB	4

Starter

1. Calculate

a. 50×75.8

b. $1170 \div 60$

2. Convert the following

a. 2390 cm to m

b. 492 m to mm

c. 960 mL to cm^3

3. Factorise

a. $8p + 56$

b. $27g - 9h$

c. $12x^2 + 30xy^2$

4. a. If Lisa began watching a film on TV at 7.44pm, and it finished at 10.27pm, for how long was she watching TV?
- b. During the film, there were 2 advert breaks of 4 mins 15 s, 2 breaks of 3 mins 45 s, and 2 breaks of 2 mins 30 s. How long was the actual film?

Starter

1. Calculate

a. $29.25 - 1.358$

b. $1888 \div 80$

2. Factorise

a. $18a - 3$

b. $9c + 36d^2$

c. $32x^2y^3 + 24xy^2$

3. Find the volume of a cuboid with length = 5 cm,
breadth = 25 cm and height = 9 cm.

Express your answer in L.

4. The atomic weight of iron is 56, and sulphur is 32.

a. Find the ratio of iron:sulphur in its simplest form.

b. This ratio is used to make iron sulphide.

Calculate the weight of each element required to make
440 g of iron sulphide.

Starter

1. Calculate

a. $0.39 + 3.084$

b. $101.5 \div 7$

2. Factorise

a. $12v + 24w$

b. $25gh - 15g^2$

c. $18x^4y^2 + 54x^2y^3$

3. If $g = 4$, $h = (-2)$, and $i = 10$, find

a. $3gi - h$

b. $i - 2h + g^2i$

c. $i + (h - g)^2$

4. Cardiac output = volume of blood \times heart rate.

If a student has a heart rate of 80 beats per minute, and a cardiac output of 4 litres per minute, what is the volume of blood pumped per beat (in cm^3)?

Starter

1. Calculate

a. 23.8×600

b. $1.029 - 0.65$

2. Find the range, median and mode for this data set:

125, 134, 152, 134, 167, 151, 139, 127

3. Factorise

a. $3x^2 - 9x^3$

b. $12a^2bc^2 - 24ab^3 + 8ac$

4. The table shows the composition of a serving of low fat milk.

a. What is the simplest whole number ratio of mass of protein to carbohydrate to fat?

b. For every 75 g of protein consumed, how much fat is present?

Composition	200 cm ³ low fat milk provides
protein	6.0 g
carbohydrate	10.0 g
fat	0.2 g