

1

A spherical balloon has a total surface area of $100\pi \text{ cm}^2$.

Calculate the volume of the balloon, giving your answer to the nearest whole number.

A 523.6 cm^3

B 1000 cm^3

C 2619 cm^3

D 4189 cm^3

1

2

Mia is baking cupcakes for a school fundraiser. She needs to make a total of 72 cupcakes, and each batch yields 12 cupcakes.

How many batches of cupcakes does Mia need to bake to reach her goal?

A 6

B 8

C 9

D 10

1

3

Amelia is planning a trip to the cinema with her friends.

Tickets cost £8 each and popcorn costs £5 per bucket.

Which of the following combinations could Amelia buy?

A 2 tickets and 2 popcorn buckets

B 3 tickets and 2 popcorn buckets

C 2 tickets and 3 popcorn bucket

D 3 tickets and 3 popcorn buckets

1

4

A factory produces 12 bottles of shampoo per box.

Each bottle contains 250 ml of shampoo.

Sarah's hair salon orders 36,000 ml of shampoo from the factory.

How many boxes of shampoo did Sarah's hair salon order?

A 12

B 120

C 1200

D 12000

1

5

A rectangular fish tank has a width of 30 cm, a height of 40 cm and a volume of $36,000 \text{ cm}^3$.

What is the length of the fish tank?

A 30 cm

B 40 cm

C 50 cm

D 30 cm

1

6

Amelia is making friendship bracelets for her classmates.

She has 180 cm of string and wants to cut it into 12 equal pieces.

Which expression represents the length of each piece of string in cm?

A $180 \div 12$

B $12 + 180$

C $180 - 12$

D 180×12

1

7

A pizza restaurant offers a special deal where they cut their extra-large pizzas into 12 equal slices.

What is the angle, in degrees, of each slice of the extra-large pizza?

A 30°

B 24°

C 36°

D 45°

1

8

A local bakery charges a base fee of £5 for a cake, plus £2.50 per layer and £1.25 for each type of frosting used.

The total cost of a cake can be calculated using the formula: Total Cost = $5 + 2.5L + 1.25F$, where L is the number of layers and F is the number of frosting types.

If Emma orders a cake with 4 layers and 3 types of frosting, how much will she pay in total?

A 18.75

B 13.75

C 15.25

D 20.00

1

9

Amelia has a collection of 12 seashells that she found on the beach during her holiday.

The total weight of her seashell collection is 420 g.

She gives her friend a seashell that weighs 35 g as a souvenir.

What is the average weight of Amelia's remaining seashells?

A 35 g

B 32 g

C 38 g

D 34.5 g

1

10

A school is organising a trip to the zoo for 312 students.

The students will be split into 8 equal-sized groups, each led by a teacher.

How many students will be in each group?

A 39

B 41

C 36

D 44

1

