

1 The cost, C , in pounds, for a group of friends to rent a bouncy castle can be calculated using the formula $C = (120 \div f) + 15$, where f is the number of friends splitting the cost.

If 8 friends decide to rent the bouncy castle, how much will each friend need to pay?

- A £30 B £25 C £20 D £35

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2 If the length of a rectangle is represented by $2x + 3$ and its width is 5, what is the area of the rectangle when $x = 4$?

- A 55 B 33 C 65 D 45

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3 Mr Johnson is making a large batch of homemade lemonade for a party.

He has 5 litres of lemonade that he is pouring into different sized glasses.

He pours the lemonade into two glasses that each hold a ml, and five glasses that each hold b ml.

He completely fills the glasses and there is no lemonade left over.

Which of the following gives the total volume of lemonade in ml in terms of a and b ?

- A $5\,000 = 2a + 5b$ B $5\,000 = 2a - 5b$ C $2a + b = 5\,000$ D $5\,000 = a - b$

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4 A local charity calculates the cost per person for a fundraising dinner using the following formula: $C = (500 \div n) + 25$, where C is the cost per person in pounds and n is the number of attendees.

If 20 people attend the dinner, how much will each person need to pay?

- A £30 B £45 C £55 D £50

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5 Samantha is planning a party and needs to buy a certain number of balloons, B , and a certain number of party hats, H .

Balloons cost £1.20 each, and party hats cost 80p each.

Samantha wants to spend exactly £20 on party supplies.

Which of the following combinations could Samantha buy for her party?

- A 10 balloons and 10 B 5 balloons and 8 party C 5 balloons and 20 D 20 balloons and no

6

A bakery sells cupcakes in boxes of 20.

They also sell crates that contain 5 boxes.

Each cupcake costs £0.75.

What is the total cost of one crate of cupcakes?

A £75**B** £7.50**C** £750**D** £7 500

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7

Sarah is thinking of a shape.

She says: "It is a regular polygon with four equal sides and four equal angles."

Which of the following shapes is Sarah thinking of?

A Rhombus**B** Square**C** Rectangle**D** Parallelogram

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8

A large cruise ship has a total passenger capacity of 3,827 people.

During a recent voyage, only 3,619 passengers were on board.

How many empty passenger slots were there on the ship?

A 208**B** 218**C** 198**D** 228

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9

A remote-controlled toy car is driven 4 metres forward and 3 metres to the left.

It finishes its journey at the point $(-2, 6)$ on a coordinate grid.

What are the coordinates of the point where the car started its journey?

A $(2, 10)$ **B** $(1, 2)$ **C** $(-6, 3)$ **D** $(-6, 9)$

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10

Liam and Olivia were baking cookies for a school fundraiser.

Liam baked a batch of 24 cookies in 18 minutes, while Olivia baked a batch of 36 cookies in 27 minutes.

How many minutes did it take them to bake both batches of cookies in total?

A 45 minutes**B** 51 minutes**C** 42 minutes**D** 54 minutes

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