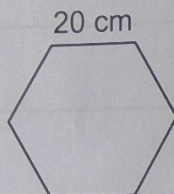


Formulas and Combinations

1

The formula for finding the perimeter of a regular polygon is:
 $\text{Perimeter} = \text{Number of sides} \times \text{Length of one side}$

Find the perimeter of a regular hexagon with sides of length 20 cm.


 cm

1 mark

2

At an ice cream parlour, customers choose two different flavours from this list: chocolate, strawberry, caramel and vanilla.

Four of the possible combinations are shown below.
 Which two combinations of flavours are missing?

- Chocolate and strawberry
- Strawberry and vanilla
- Chocolate and caramel
- Caramel and vanilla



and



and

1 mark

3

The formula for working out how much Nicole is paid in a week is:
 $\text{Amount paid} = \text{£}7 \times \text{Number of hours worked} + \text{£}10$

One week, Nicole works for 9 hours. How much will she be paid?


 £

1 mark

The next week, she works for 20 hours.
 How much **more** will she be paid this week than the last week?


 £

1 mark

Formulas and Combinations

4

Amir is packing apples and oranges into bags.
Apples weigh 150 g each and oranges weigh 200 g each.

Circle the formula below that would give you the correct weight (in grams) of a bag containing apples and oranges.



$150 \times \text{Number of apples} + 150 \times \text{Number of oranges}$

$200 \times \text{Number of apples} + 150 \times \text{Number of oranges}$

$150 \times \text{Number of apples} + 200 \times \text{Number of oranges}$

$200 \times \text{Number of apples} + 200 \times \text{Number of oranges}$

1 mark

Amir packs 4 apples and 6 oranges into a bag.
How much does the bag weigh?



g

1 mark

5

Patrick makes necklaces by threading a number of beads onto a chain.
He works out how much to sell each necklace for using this formula:
Cost = £2.40 for the chain + 50p \times number of beads

What is the cost of a necklace made with 8 beads?



£

1 mark

Jemma buys one of Patrick's necklaces. She pays £7.90.
How many beads does Jemma's necklace have?



2 marks

"I can use formulas written in words. I can list all possible combinations of different options."

