

Maths Reasoning 12 *spicy*

Q1 There are 810 people watching a concert. 640 of them are adults.

How many are children?

1 mark

Q2 A number becomes 317,000 when rounded to the nearest thousand.

The number is made from these digits.

8	7	4	3	1	0
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Write two possible numbers that it could be.

1 mark

Q3 A rectangular sticky label has a width of 7cm and length of 12cm.



What is the perimeter of the label?

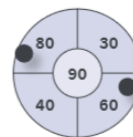
 cm

Q1 Harry calculates four different amounts.

- A $\frac{1}{5}$ of 60
- B 90 shared into three equal groups
- C $\frac{2}{3}$ of 18
- D A quarter of 100

Which of the four calculations is the odd one out? Explain your answer.

Q2 Emily throws two plastic balls at a target. She multiplies the two numbers together to get her final score.



Is Emily's final score more or less than 5,000? Explain your answer.

Q3 Muhammad and Ethan are counting along a number line.

If they need to, the children count across zero.

Muhammad counts forwards in twos from -15. He counts six numbers, not including -15.

Ethan counts backwards in threes from 9. He counts five numbers, not including 9.

What numbers do they end on?

Muhammed ends on

Ethan ends on

ANSWERS

- Q1** There are 810 people watching a concert. 640 of them are adults.

How many are children?

170

1 mark

- Q2** A number becomes 317,000 when rounded to the nearest thousand.

The number is made from these digits.

8 7 4 3 1 0

Write two possible numbers that it could be.

317,084

317,408

- Q3** A rectangular sticky label has a width of 7cm and length of 12cm.



What is the perimeter of the label?

38 cm

- Q1** Harry calculates four different amounts.

- A $\frac{1}{5}$ of 60
- B 90 shared into three equal groups
- C $\frac{2}{3}$ of 18
- D A quarter of 100

Which of the four calculations is the odd one out? Explain your answer.

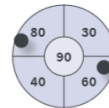
Accept any reasonable answers.

For example:

C because multiplication is needed as well as division to find the answer.

D because all the other answers are multiples of 6.

- Q2** Emily throws two plastic balls at a target. She multiplies the two numbers together to get her final score.



Is Emily's final score more or less than 5,000? Explain your answer.

Emily's score is less than 5,000 because $80 \times 60 = 4,800$.

- Q3** Muhammad and Ethan are counting along a number line. If they need to, the children count across zero.

Muhammad counts forwards in twos from -15 . He counts six numbers, not including -15 .

Ethan counts backwards in threes from 9. He counts five numbers, not including 9.

What numbers do they end on?

Muhammed ends on -3

Ethan ends on -6