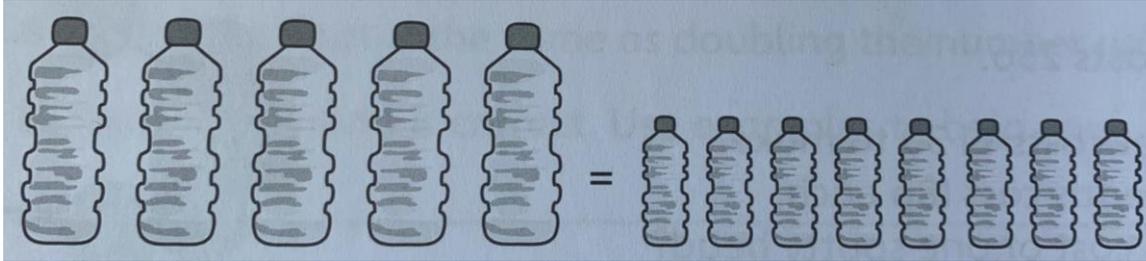


# RECALL

Richard compares the capacity of large and small bottles.

The capacity of a large bottle is 720ml.

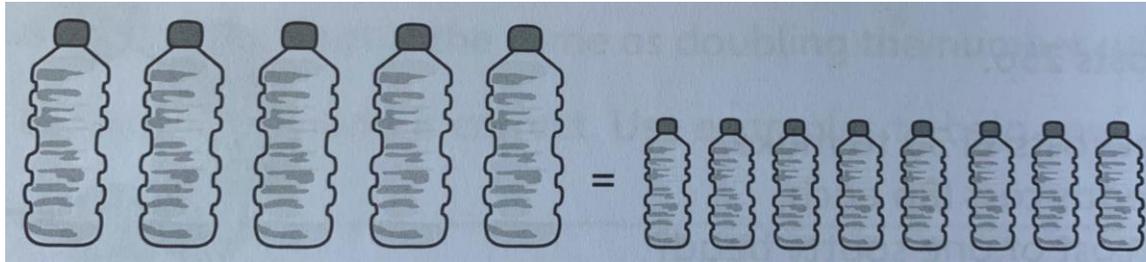


- What is the capacity of a small bottle?
- How many more litres of water fill 10 large bottles than 10 small bottles?

# RECALL ANSWERS

Richard compares the capacity of large and small bottles.

The capacity of a large bottle is 720ml.



a) What is the capacity of a small bottle? **450ml**

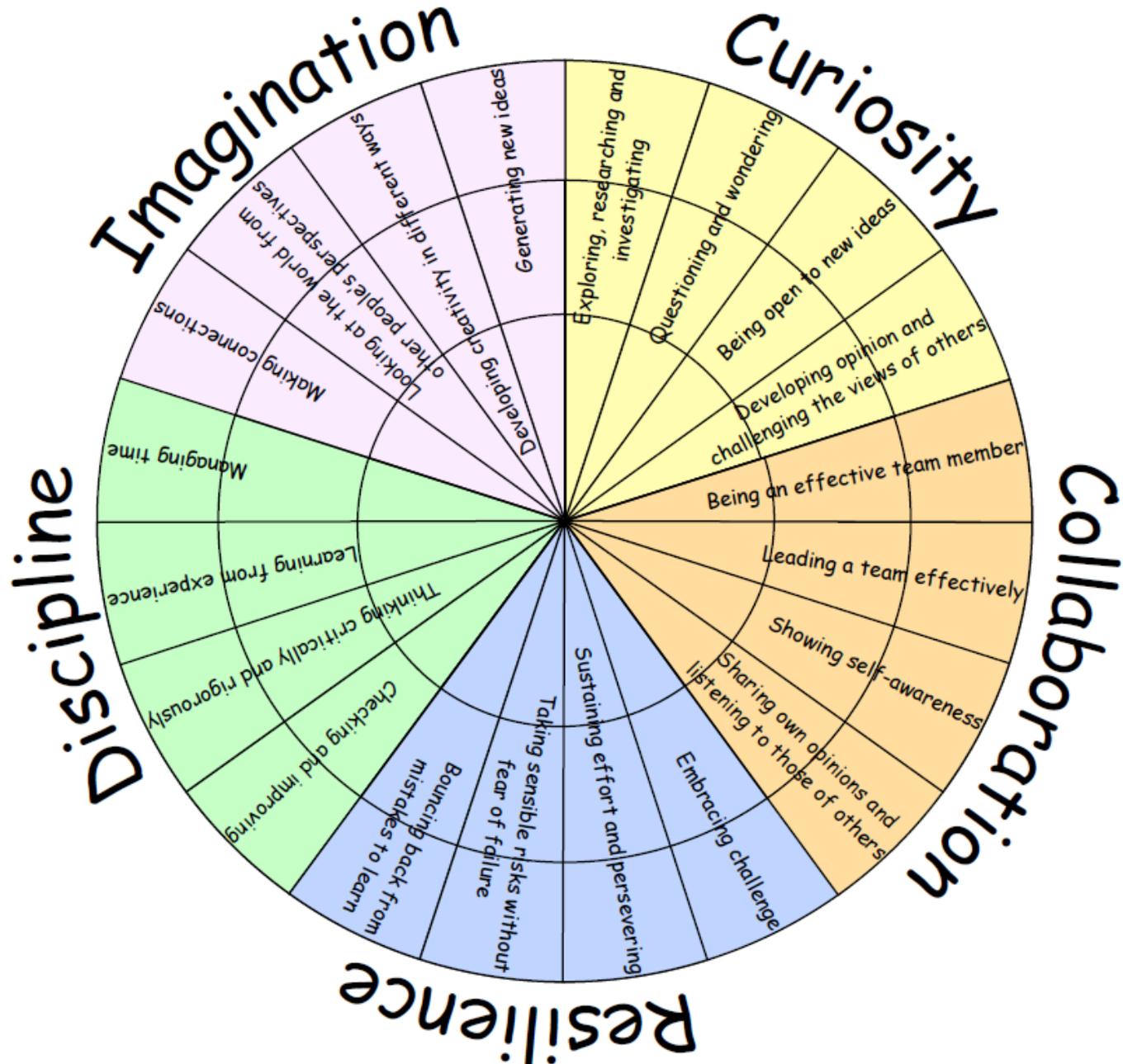
b) How many more litres of water fill 10 large bottles than 10 small bottles?

**10 large bottles of water will hold 2700ml more than 10 small bottles**

I CAN SOLVE MULTI-STEP  
WORD PROBLEMS AND  
INVESTIGATIONS INVOLVING  
ALL 4 OPERATIONS FROM A  
LARGE RANGE OF CONTEXTS

Problem Solving (19v)

# LEARNING HABITS?



# GUIDED PRACTICE

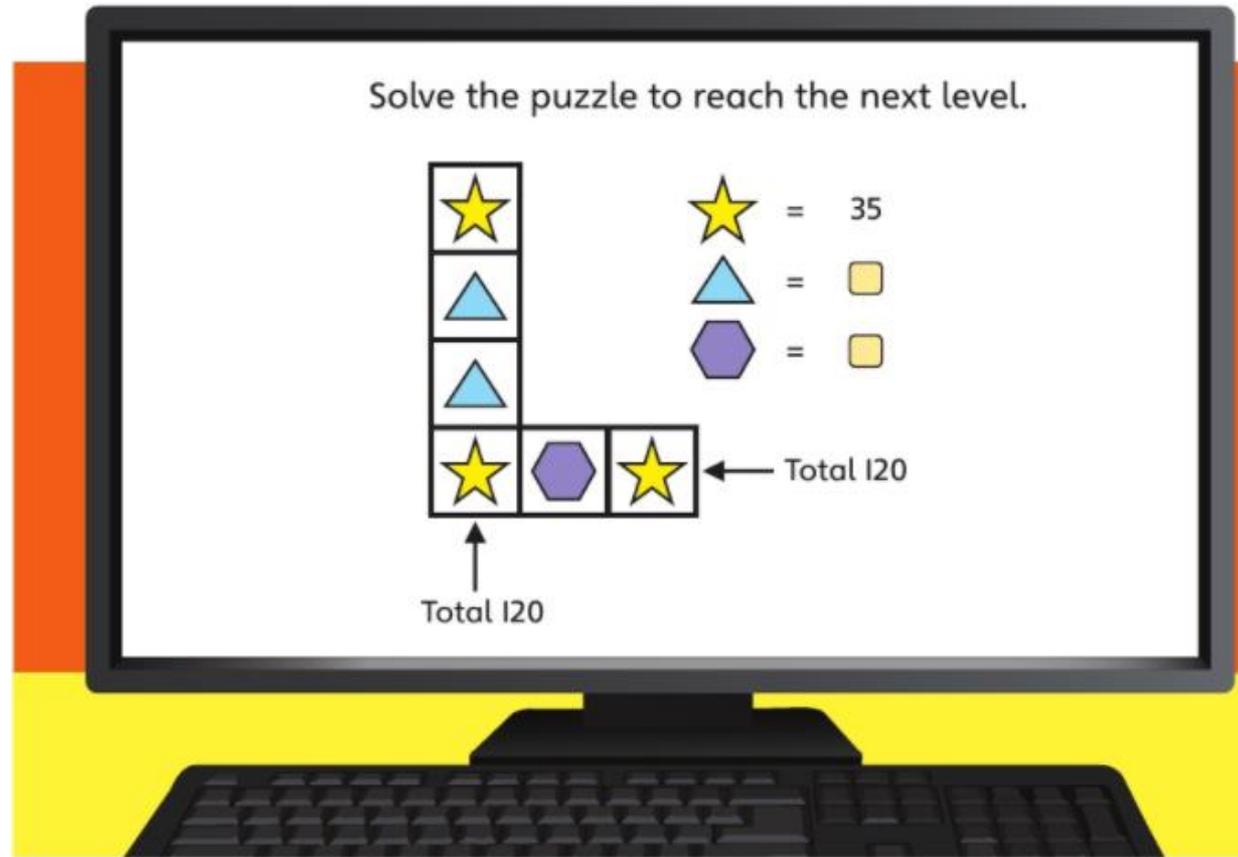
1) What are the values of the shapes?

2) On the next level of the game, the puzzle looks the same but both the totals are doubled.

What are the values of the shapes?

Lexi says, 'That's easy! The value of each shape must be doubled too!'

Do you agree? Explain your answer.



# DIVE DEEPER 1

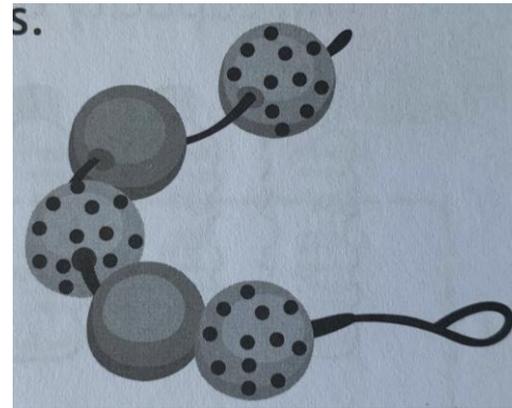
1) Jamie makes bracelets using laces and different beads.

Each lace costs 25p.

This bracelet costs £1.30 to make.

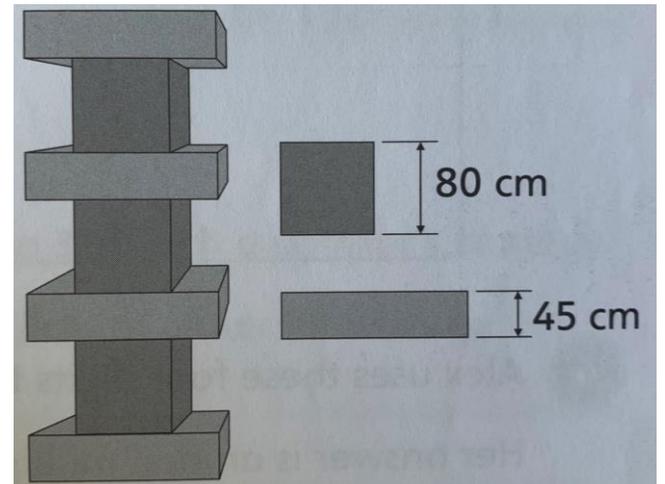
The plain beads cost 18p each.

What is the cost of one spotty bead?



2) A tower is made with two different-sized blocks.

Calculate the height of the tower.



# DIVE DEEPER 1 ANSWERS

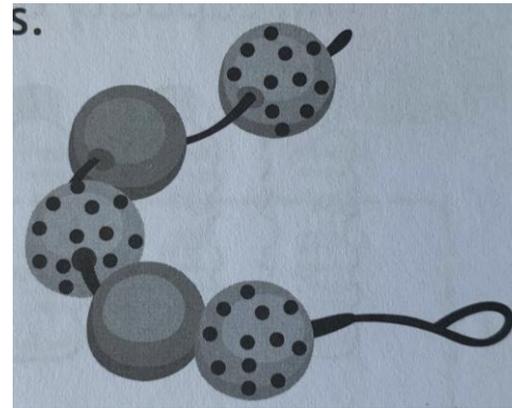
1) Jamie makes bracelets using laces and different beads.

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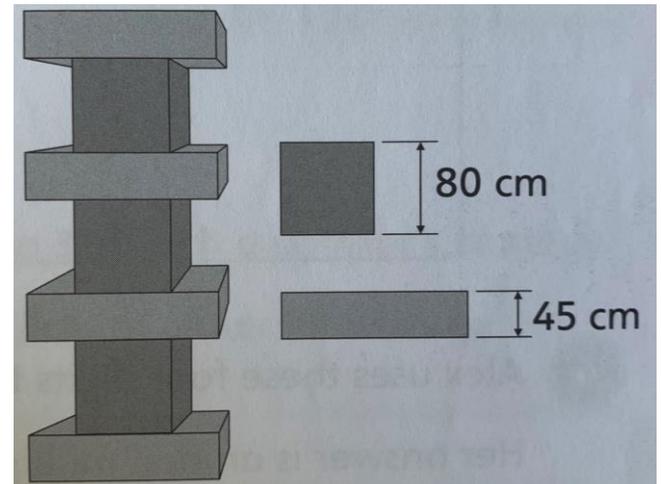
What is the cost of one spotty bead? **23p**



2) A tower is made with two different-sized blocks.

Calculate the height of the tower.

**375cm**

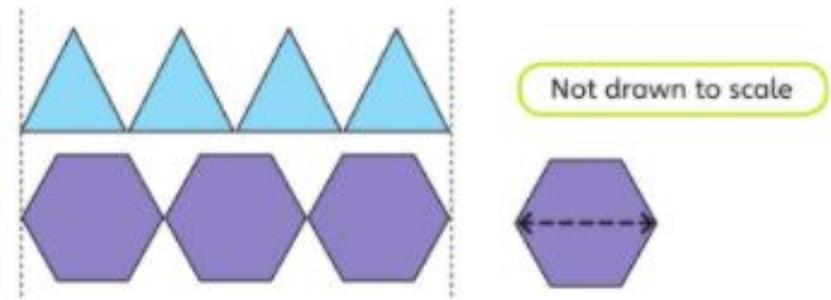


# DIVE DEEPER 2

3a) The shapes are arranged in a pattern.

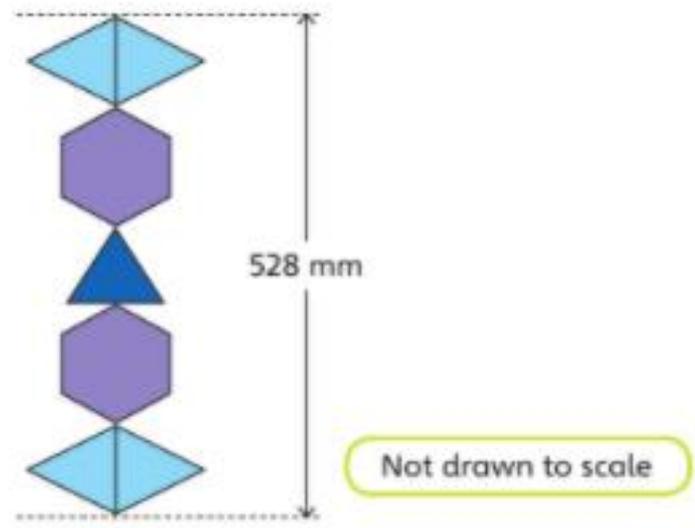
The base of each triangle is 90mm.

What is the width of each hexagon?



b) The same shapes are arranged in another pattern.

What is the height of the dark triangle in the middle of the pattern?



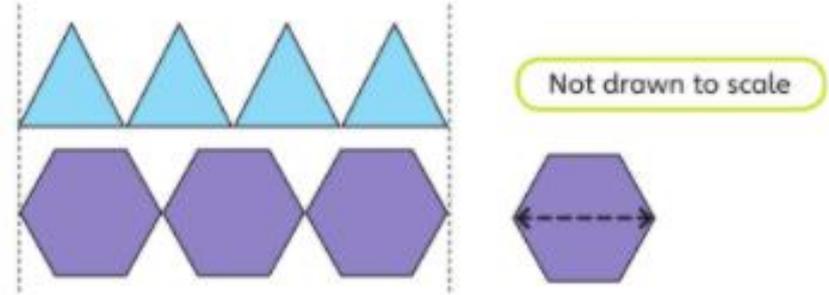
# DIVE DEEPER 2 ANSWERS

3a) The shapes are arranged in a pattern.

The base of each triangle is 90mm.

What is the width of each hexagon?

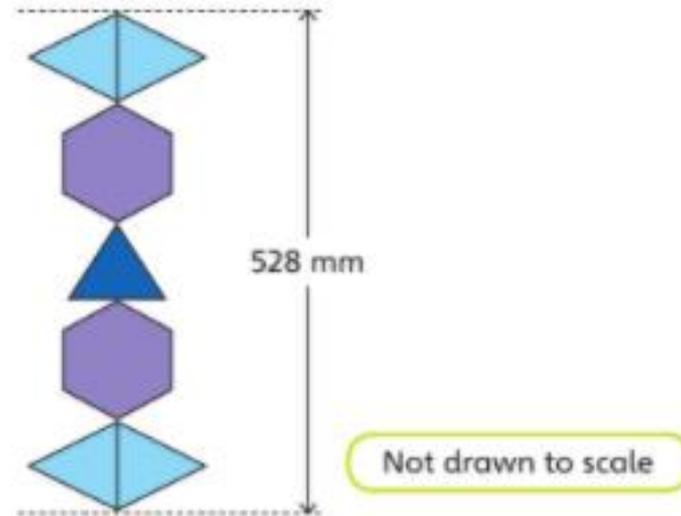
120mm



b) The same shapes are arranged in another pattern.

What is the height of the dark triangle in the middle of the pattern?

128mm



# DIVE DEEPER 3

4) Alex uses these four digits to make a calculation: 3            4            8            9

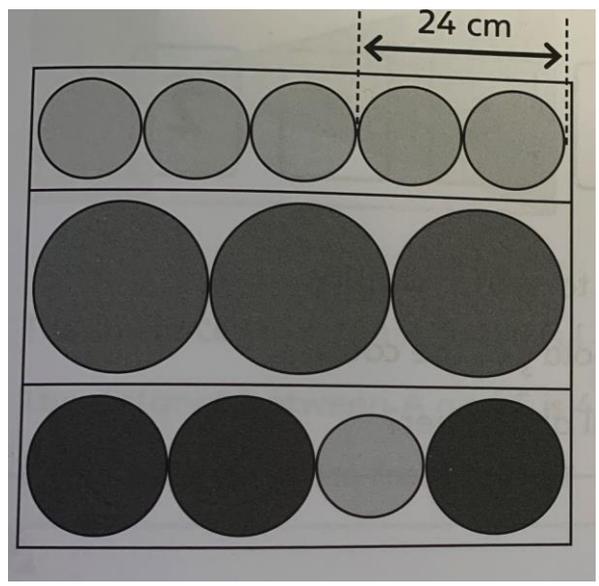
\_\_\_\_\_ x \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

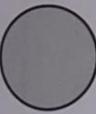
Her answer is an odd multiple of 5.

What calculation did she make?

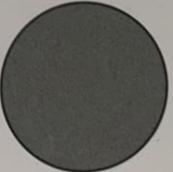
Find more than one solution.

5) Find the diameters of the different-sized circles.



 =  cm

 =  cm

 =  cm

# DIVE DEEPER 3 ANSWERS

4) Alex uses these four digits to make a calculation: 3      4      8      9

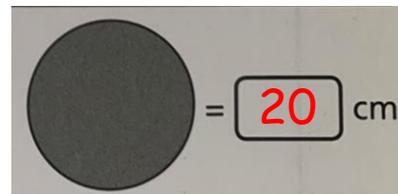
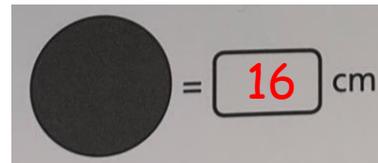
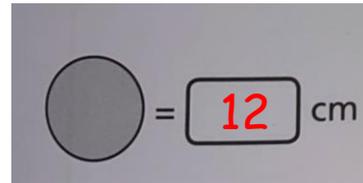
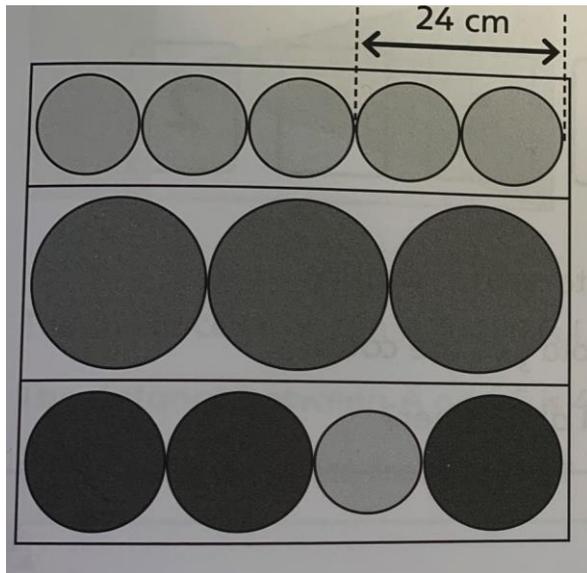
$$43 \times 9 + 8 = 395$$

Her answer is an odd multiple of 5.

What calculation did she make?

Find more than one solution.

5) Find the diameters of the different-sized circles.



# DIVE DEEPER 4

6) Lee does a multiplication calculation.

The ones digit of his answer is 4.

Which of these calculations could it be?

Solve this without doing any working out!

A:  $583 \times 8$

B:  $450 \times 4$

C:  $1235 \times 4$

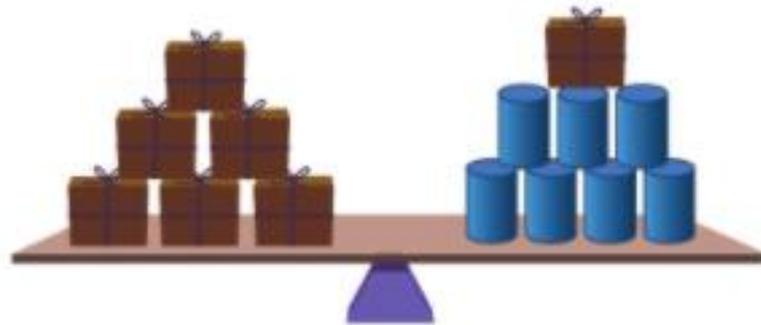
D:  $24264 \times 6$

E:  $3469 \times 6$

7) The diagram shows boxes and tins on a balance scale.

The mass of one box is 448g.

What is the mass of one tin?



# DIVE DEEPER 4 ANSWERS

6) Lee does a multiplication calculation.

The ones digit of his answer is 4.

Which of these calculations could it be?

Solve this without doing any working out!

A:  $583 \times 8$  ✓

B:  $450 \times 4$

C:  $1235 \times 4$

D:  $24264 \times 6$  ✓

E:  $3469 \times 6$  ✓

7) The diagram shows boxes and tins on a balance scale.

The mass of one box is 448g.

What is the mass of one tin?

320g

