

Numeracy Year 9 – Week 3: Algebra

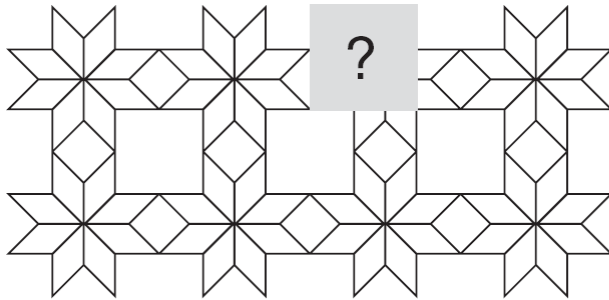
STUDENT WORKSHEET

Focus of the week

Finding missing terms in patterns

Question 1

This geometric pattern is made from three shapes:
a large square, a small square and a rhombus.



Which part of the pattern has been covered over by the grey square?

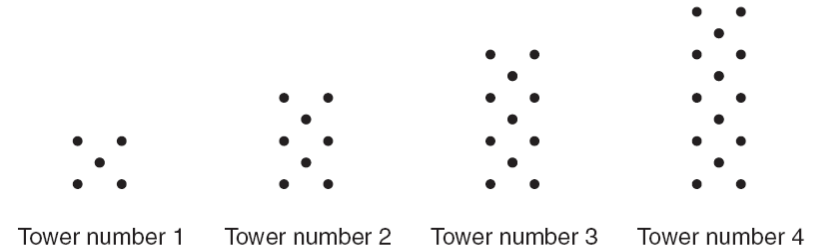


Shade one bubble.



Question 2

These Tower shapes make a pattern.
The number of dots in each Tower increases in the same way.



How many dots are in Tower number 6?

- 17
- 20
- 22
- 23
- 30

Shade one bubble.



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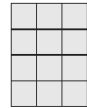
Question 3

Tiled table tops come in different sizes and follow a pattern.

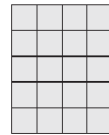
As the size increases by one, the length and width each increase by one tile.



Size 1
(2 × 3)



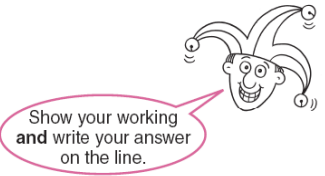
Size 2
(3 × 4)



Size 3
(4 × 5)

How many tiles are needed for the Size 20 table?

Show your working in the space below.



Show your working
and write your answer
on the line.

Answer: _____ tiles

Challenge Question

Peter bought 5 packets of football cards. Each packet contains 6 cards. Each week after that Peter bought another packet.

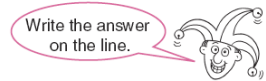
Peter's football card collection						
Week number	0	1	2	3	4	5
Number of cards	30	36	42	48	54	60

How many cards would Peter have at the end of week 8?

- 72
- 76
- 78
- 84

In what week will Peter collect his 300th card?

Week _____



Write the answer
on the line.