WORK OUT THE NEXT TERMS

BUILDING BLOCKS

NAME _____ CLASS _____ DATE _____

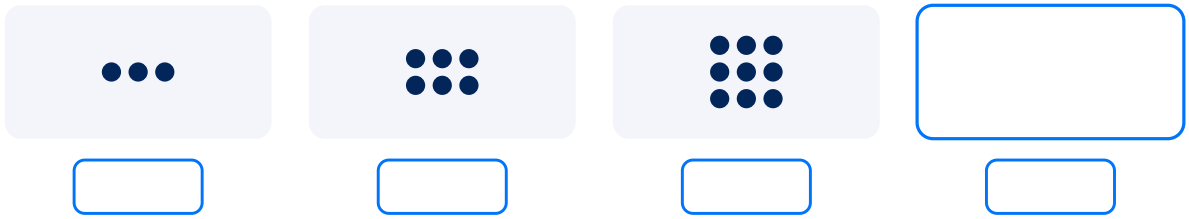
KEY IDEA

Count the objects in each term to make a number sequence.

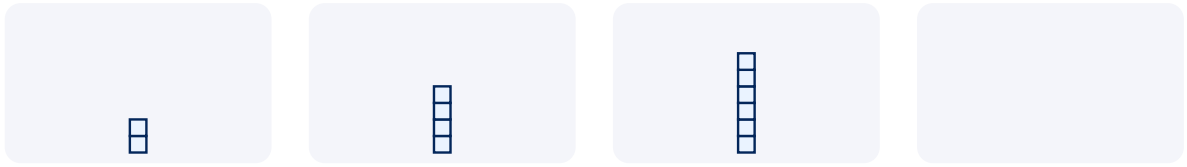
2, 4, 6 goes up by 2 each time, so the next term has 8.



1 Write how many objects there are in each term. Then draw the next term.



2 Here is a sequence of cube towers.



a) Draw the 4th term.

b) How many cubes are in the 4th term? ☐

3 These terms are made from sticks. Complete the table.



TERM	1	2	3	4	5
Sticks	4	7	10	☐	☐

4 A pile of 15 counters has 3 counters taken away each time.

a) Write the next two terms: **15, 12, 9,** ☐, ☐

b) Which term number has no counters left? ☐

WORK OUT THE NEXT TERMS

SUPPORT

NAME _____ CLASS _____ DATE _____

KEY IDEA

Count, find the change, then predict.

4, 7, 10 go up by 3 each time,
so the next term has 13.

+3 +3 +3
4, 7, 10, 13

1 These terms are made from sticks.

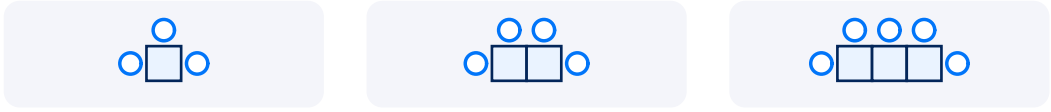


1st term | 2nd term | 3rd term | 4th term

a) Draw the 4th term.

b) Number of sticks: 3, 5, 7, ☐, ☐

2 Each term is made from squares and circles. Complete the table.



1st term | 2nd term | 3rd term

TERM	1	2	3	4	5
Squares	1	2	3	☐	☐
Circles	3	4	5	☐	☐
Total objects	4	6	8	☐	☐

3 A sequence of counters goes 3, 5, 7, ... Ali says, "The 2nd term has 5 counters, so the 4th term will have 10 counters."

Continue the sequence to check: 3, 5, 7, ☐, ☐, ☐

Ali is RIGHT WRONG

4 The 1st term has 24 squares. Each time, 4 squares are taken away.

Which term number has no squares left? ☐

WORK OUT THE NEXT TERMS

CORE

NAME _____ CLASS _____ DATE _____

KEY IDEA

Count the objects in each term and look at how the number changes. If a term has more than one type of object, count each type separately. Predict, then check by drawing.

FLUENCY

1 Here is a sequence of terms made from squares.



1st term 2nd term 3rd term

a) How many squares are in the 4th term? ☐

b) How many squares are in the 10th term? ☐

2 Each term is a train made from squares, circles and a triangle.



1st term 2nd term 3rd term

a) How many circles are in the 6th term? ☐

b) How many objects are there altogether in the 10th term? ☐

REASONING

3 Here is a sequence of rectangles made from squares.



1st term 2nd term 3rd term

a) Write the next two terms: **2, 6, 12,** ☐, ☐

b) Is the increase the same each time? YES NO

4 A sequence goes 4, 7, 10, ... Mo says, "The 4th term is 13, so the 8th term is 26, because 13 × 2 = 26." Explain why Mo is wrong.

.....

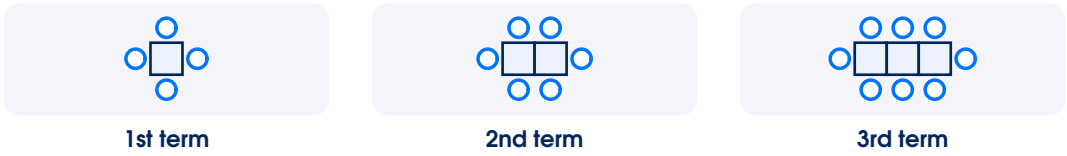
WORK OUT THE NEXT TERMS

GREATER DEPTH

NAME _____ CLASS _____ DATE _____

REASONING

1 This sequence of terms is made from squares and circles.



1st term | 2nd term | 3rd term

a) How many circles are in the 25th term? ☐

b) Is there a term with exactly 30 circles? Exactly 25? Explain.

PROBLEM SOLVING

2 The 1st and 3rd terms are shown. The sequence grows by the same amount each time.



1st term | 2nd term | 3rd term

a) Draw the 2nd term.

b) How many squares are in the 8th term? ☐

3 Sam makes squares in a row from matchsticks: 4, 7, 10, ... matchsticks.

a) With 50 matchsticks, what is the biggest term number Sam can make? ☐

b) How many matchsticks are left over? ☐

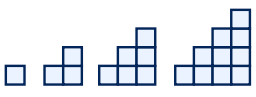
★ CHALLENGE FOR ALL

4 Ella builds staircases from cubes. They use 1, 3, 6 and 10 cubes.

a) With 100 cubes, how many steps has her biggest staircase? ☐

b) How many cubes are left over? ☐

c) How many cubes are needed for 20 steps? ☐



WORK OUT THE NEXT TERMS – ANSWERS

ANSWERS

BUILDING BLOCKS

1. 3, 6, 9; next term: 4 rows of 3 dots, 12
2. a) a tower of 8 cubes · b) 8
3. 13, 16
4. a) 6, 3 · b) the 6th term

SUPPORT

1. a) 4 triangles in a row (9 sticks) · b) 9, 11
2. 4th term: 4 squares, 6 circles, 10 objects · 5th term: 5 squares, 7 circles, 12 objects
3. 9, 11, 13. Ali is WRONG: the 4th term has 9 counters, not 10
4. the 7th term

CORE

1. a) 17 · b) 41
2. a) 12 · b) 1 · c) 31 (10 squares, 20 circles, 1 triangle)
3. a) 20, 30 · b) NO: the increases are 4, 6, 8, 10
4. The sequence adds 3 each time; it does not double. The 8th term has $13 + 4 \times 3 = 25$ counters, not 26

GREATER DEPTH

1. a) 52 · b) 30 circles: yes, the 14th term · 25 circles: no, the number of circles is always even
2. a) an L-shape of 5 squares · b) 17
3. a) the 16th term (uses 49 matchsticks) · b) 1
4. a) 13 steps (uses 91 cubes) · b) 9 · c) 210