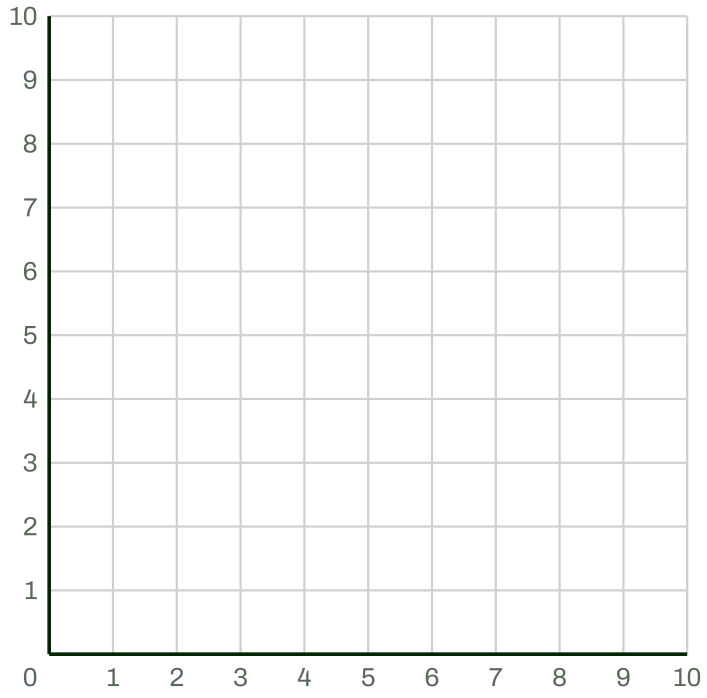
GRADE 7 · ALGEBRAIC REASONING

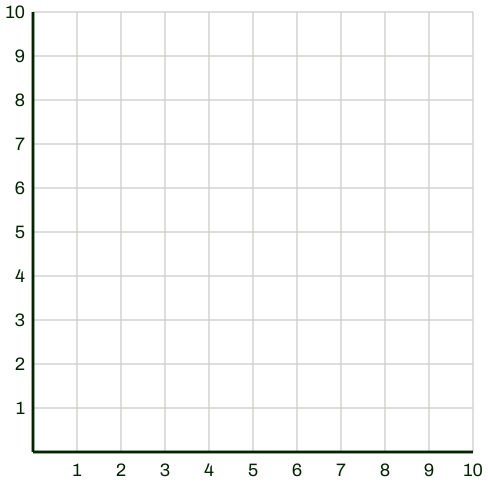
Graph a proportional relationship

NAME	DATE	SCORE / 10

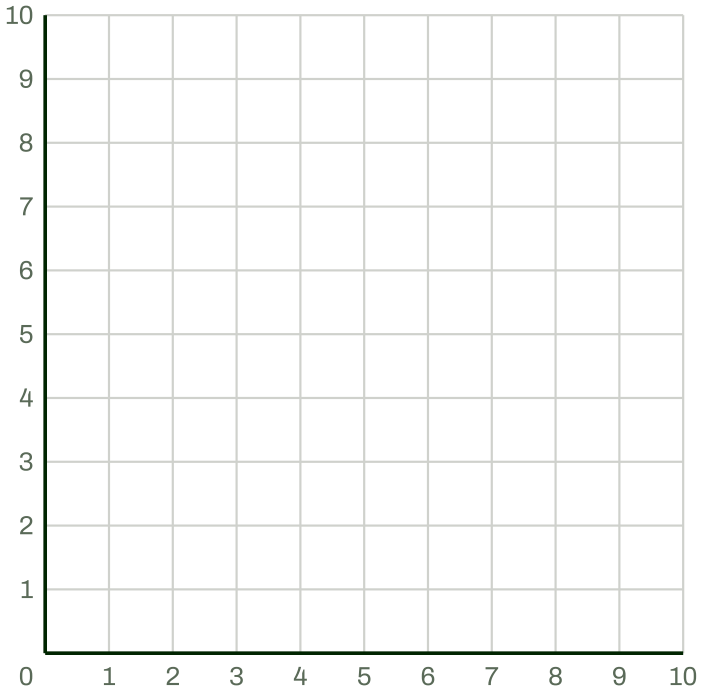
1 3 books cost $12. On the graph, x is the number of books and y is the cost in dollars. Plot the point for 1 book.



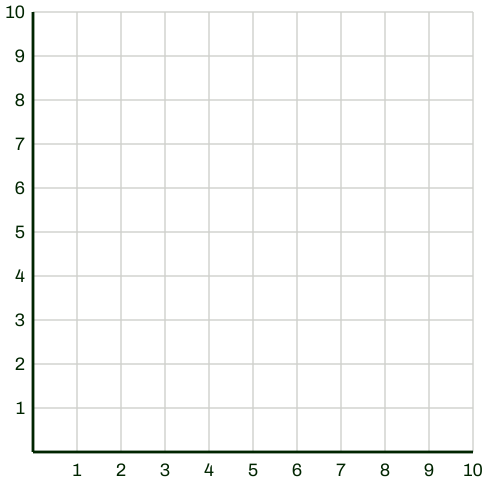
2 5 pens cost $25. On the plane below, x is the number of pens and y is the cost in dollars. Graph the cost of x pens. Circle the point for 1 pen.



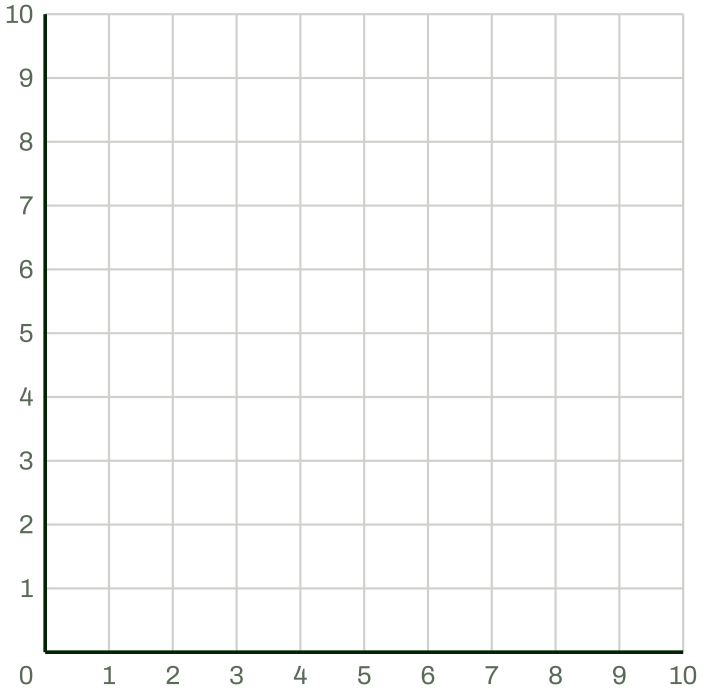
3 x and y are proportional, and y = 16 when x = 2. Plot the point on the graph of x and y where x = 1.



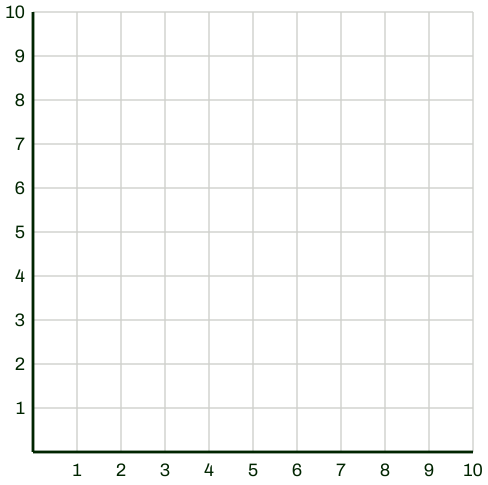
4 3 books cost $15. On the plane below, x is the number of books and y is the cost in dollars. Graph the cost of x books. Circle the point for 1 book.



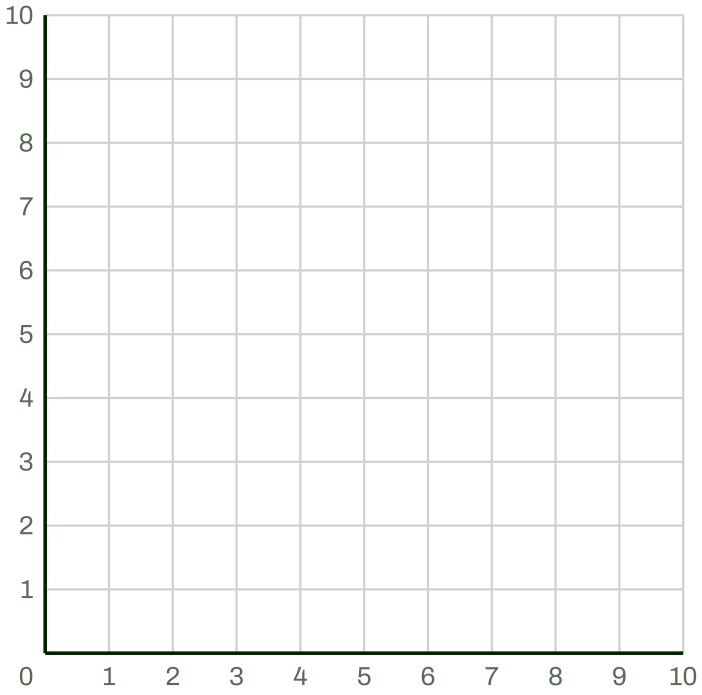
5 Plot the point on the graph of y = 7x where x = 1.



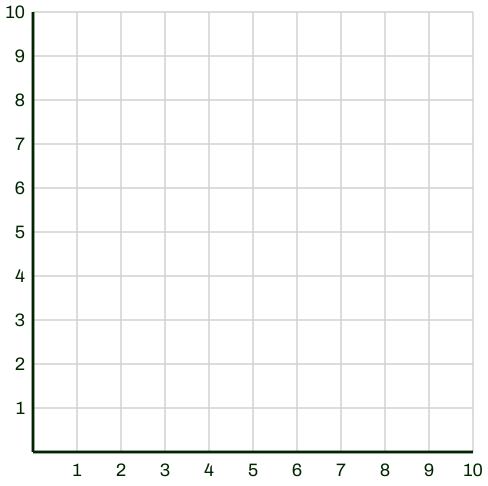
6 4 notebooks cost $8. On the plane below, x is the number of notebooks and y is the cost in dollars. Graph the cost of x notebooks. Circle the point for 1 notebook.



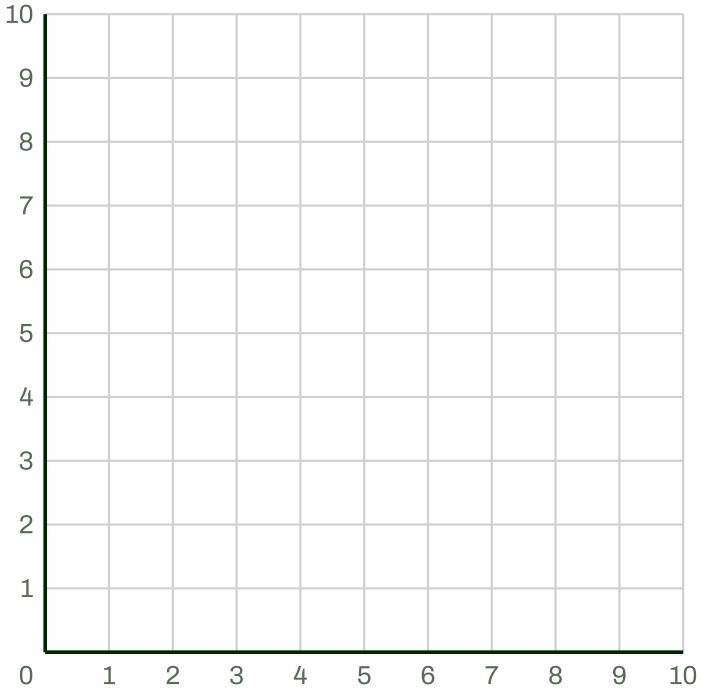
7 6 notebooks cost $36. On the graph, x is the number of notebooks and y is the cost in dollars. Plot the point for 1 notebook.



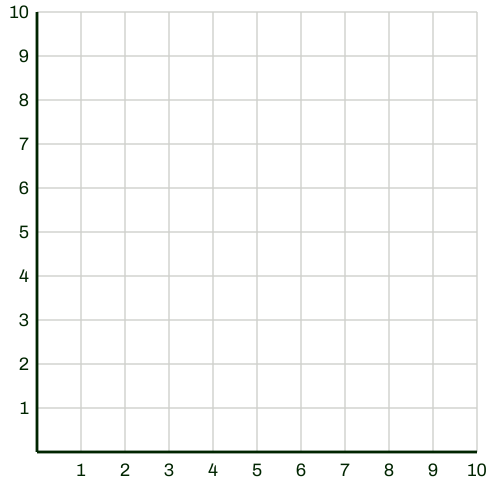
8 Graph y = 3x on the coordinate plane below. Circle the point where x is 1.



9 6 pens cost $30. On the graph, x is the number of pens and y is the cost in dollars. Plot the point for 1 pen.



10 Graph y = 4x on the coordinate plane below. Circle the point where x is 1.



ANSWER KEY · GRADE 7 · ALGEBRAIC REASONING

Graph a proportional relationship

1 1,4

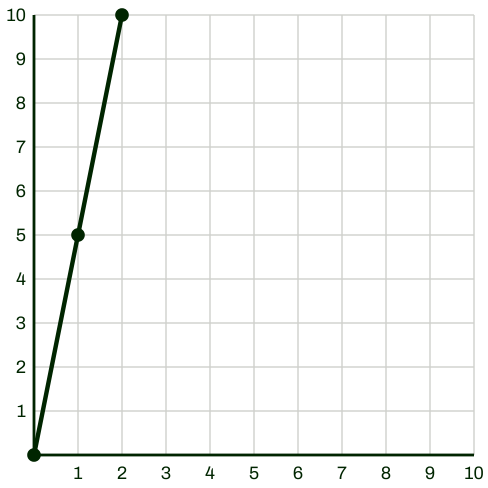
3 1,8

5 1,7

7 1,6

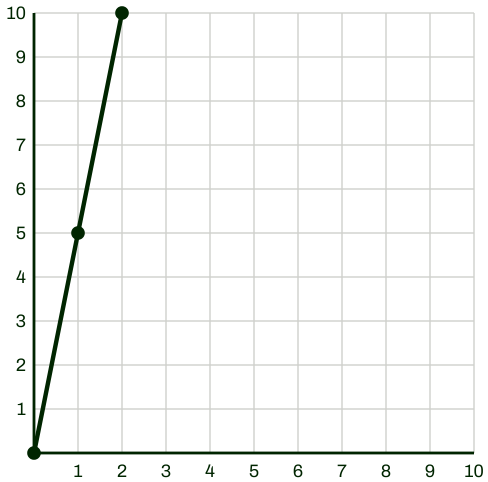
9 1,5

2 A drawing



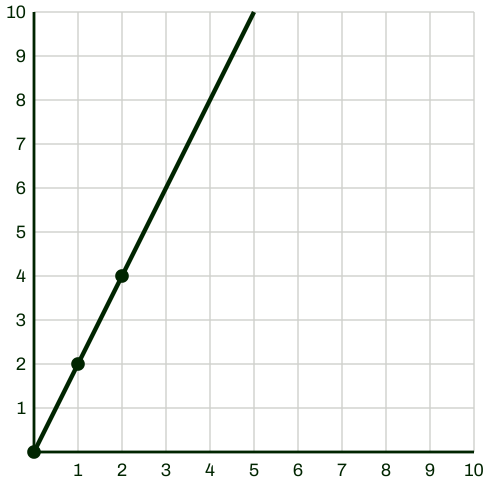
What counts as right: A straight line from (0, 0) through (1, 5) and (2, 10), and the point (1, 5) circled. A line that does not pass through (0, 0), or the point (5, 1) circled instead, does not count.

4 A drawing



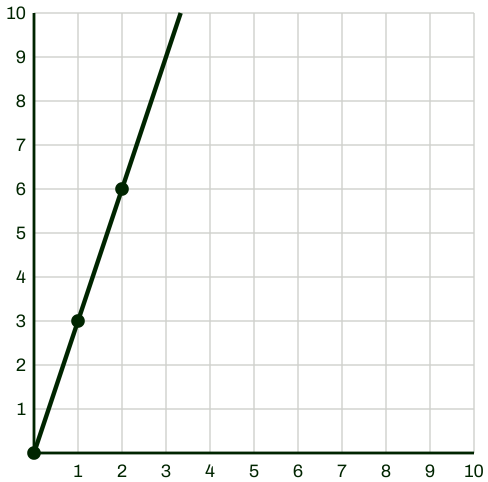
What counts as right: A straight line from (0, 0) through (1, 5) and (2, 10), and the point (1, 5) circled. A line that does not pass through (0, 0), or the point (5, 1) circled instead, does not count.

6 A drawing



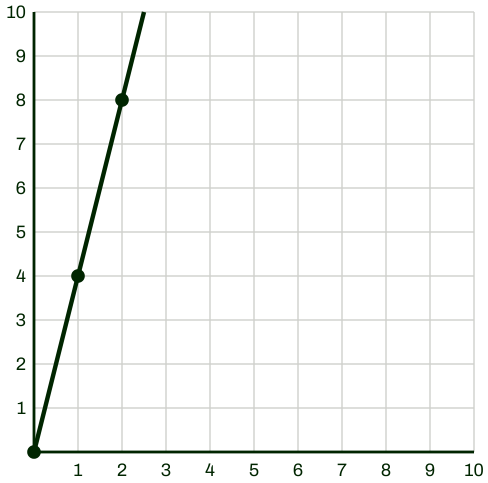
What counts as right: A straight line from (0, 0) through (1, 2) and (2, 4), and the point (1, 2) circled. A line that does not pass through (0, 0), or the point (2, 1) circled instead, does not count.

8 A drawing



What counts as right: A straight line from (0, 0) through (1, 3) and (2, 6), and the point (1, 3) circled. A line that does not pass through (0, 0), or the point (3, 1) circled instead, does not count.

10 A drawing



What counts as right: A straight line from (0, 0) through (1, 4) and (2, 8), and the point (1, 4) circled. A line that does not pass through (0, 0), or the point (4, 1) circled instead, does not count.