

Grade 5 - Graphing on the Coordinate Plane - Answer Key

Common Core 5.G.A.1, 5.G.A.2 · maths-pdf.fr/en/

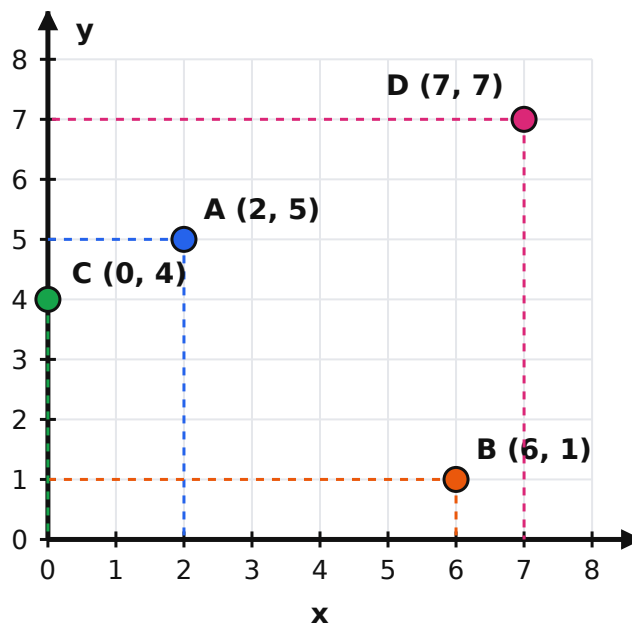
Each answer shows how to move from the origin, includes a graph where one helps, and gives the final ordered pair or measurement. Check that your x-coordinate comes first every time.

Grade 5 · Common Core State Standards: **5.G.A.1, 5.G.A.2**

Exercise 1 - Read the points

For each point, read across to the x-axis, then up to the y-axis.

- $A = (2, 5)$
- $B = (6, 1)$
- $C = (0, 4)$ on the y-axis
- $D = (7, 7)$

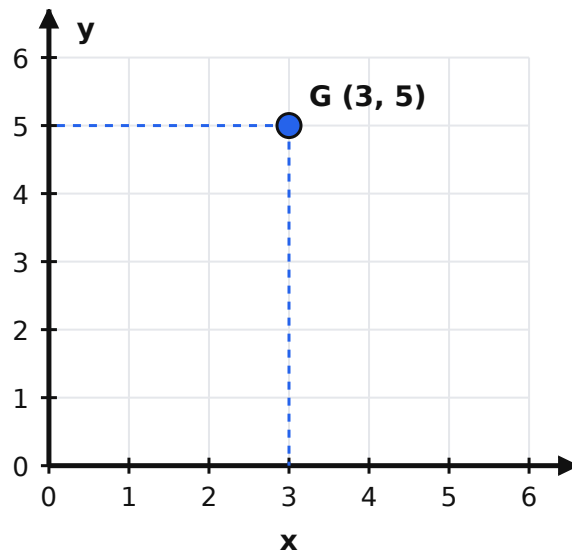


The same points with their ordered pairs.

A (2, 5), B (6, 1), C (0, 4), D (7, 7)

Exercise 2 - Plot a point

Start at the origin. Move 3 units right, then 5 units up.



Point G is 3 right and 5 up.

3 units right and 5 units up

Exercise 3 - Which number is the x-coordinate

The first number is the x-coordinate and the second is the y-coordinate.

x-coordinate 7, y-coordinate 2

Exercise 4 - Point on the x-axis

A point on the x-axis has y-coordinate 0.

$$P = (5, 0)$$

Exercise 5 - Point on the y-axis

A point on the y-axis has x-coordinate 0.

$$Q = (0, 6)$$

Exercise 6 - Moving from a point

Moving right adds to the x-coordinate: $2+4=6$, so the point is $(6,3)$.

Moving up adds to the y-coordinate: $3+2=5$.

$(6,5)$

Exercise 7 - Distance on a horizontal line

The y-coordinates match, so subtract the x-coordinates.

$$7-1=6.$$

6 units

Exercise 8 - Distance on a vertical line

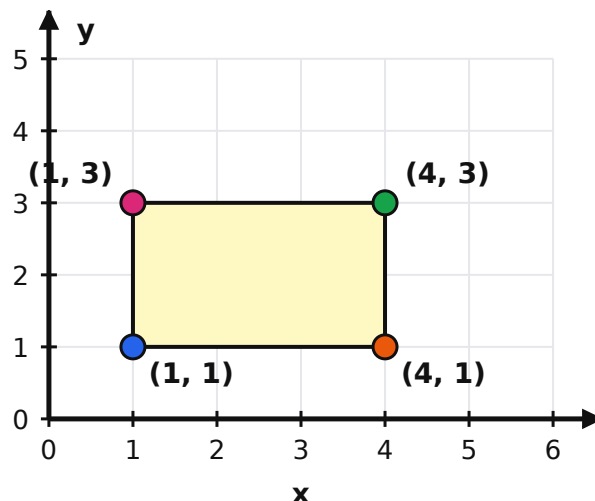
The x-coordinates match, so subtract the y-coordinates.

$$9-2=7.$$

7 units

Exercise 9 - Plot a rectangle

The sides are 3 units across and 2 units up, with four right angles.



The rectangle is 3 units wide and 2 units tall.

Perimeter: $3+2+3+2=10$.

A rectangle with perimeter 10 units

Exercise 10 - Same point or not

$(5,2)$ is 5 right and 2 up. $(2,5)$ is 2 right and 5 up. They are in different places.

No, they are different points.

Exercise 11 - Vertices of a triangle

Read each vertex: $P=(1,1)$, $Q=(7,1)$, $R=(4,5)$.

P and Q have the same y-coordinate, so $PQ=7-1=6$.

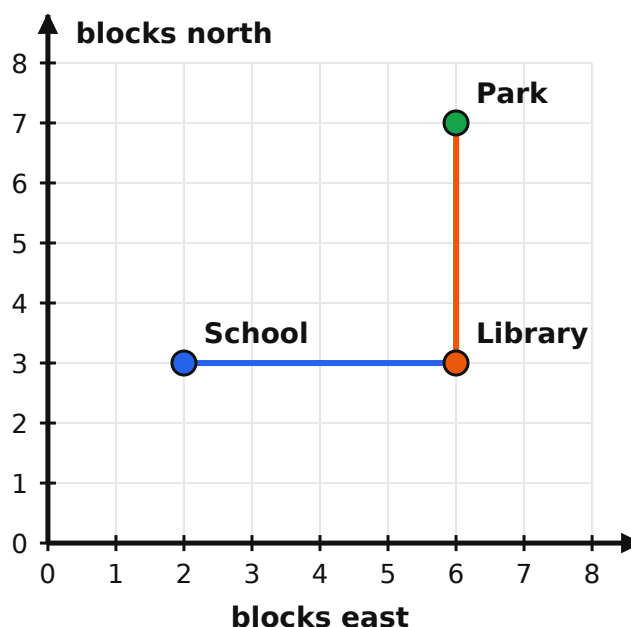
P (1, 1), Q (7, 1), R (4, 5); PQ = 6 units

Exercise 12 - School map

(a) Same y-coordinate: $6-2=4$ blocks.

(b) Same x-coordinate: $7-3=4$ blocks.

(c) $4+4=8$ blocks.



The route is 4 blocks east and 4 blocks north.

(a) 4 blocks; (b) 4 blocks; (c) 8 blocks

Exercise 13 - Table to ordered pairs

Pair each number of packs with its number of cookies.

$(1,6), (2,12), (3,18), (4,24)$

Exercise 14 - Dollars and hours

(a) The first number is hours and the second is dollars. She earns \$24 for 3 hours.

(b) The point at 4 hours is $(4,32)$.

(a) 3 hours, \$24; (b) \$32

Exercise 15 - Plant growth

(a) At week 3 the point is $(3,5)$, so the height is 5 inches.

(b) Week 1: 2 inches. Week 4: 6 inches. $6 - 2 = 4$.

(a) 5 inches; (b) 4 inches

Exercise 16 - Road trip

(a) The point at 3 hours is $(3,180)$: 180 miles.

(b) $180 \div 3 = 60$ miles per hour.

(c) $5 \times 60 = 300$ miles.

(a) 180 miles; (b) 60 mph; (c) 300 miles

Exercise 17 - Lemonade stand

(a) $(1,2), (2,4), (3,6), (4,8)$.

(b) Dollars = cups $\times 2$, so 6 cups earn 12 dollars: $(6,12)$.

(c) $9 \times 2 = 18$ dollars.

(b) (6, 12); (c) \$18

Exercise 18 - Treasure map

Chest: (4,6).

Cave: 3 units up from the chest gives (4,9).

Boat: 5 units right of the cave gives (9,9).

Chest (4, 6), cave (4, 9), boat (9, 9)

Exercise 19 - Walk to school

House to Mei's: same x-coordinate, $8 - 1 = 7$ blocks.

Mei's to school: same y-coordinate, $5 - 2 = 3$ blocks.

Total: $7 + 3 = 10$.

10 blocks

Exercise 20 - Saving money

(a) Dollars = week $\times 5$: (1,5),(2,10),(3,15),(4,20).

(b) $10 \times 5 = 50$, so (10,50).

(c) Week 10, because the point (10,50) has 50 dollars.

(b) (10, 50); (c) week 10