

Grade 5 · The Coordinate Plane · Worksheet Answer Key

Common Core 5.G.A.1, 5.G.A.2 · mathovore.fr

This answer key shows a complete solution for each of the 22 coordinate plane problems. Compare the order of every ordered pair and the way each distance was found, then correct your work step by step.

Grade 5 Common Core: 5.G.A.1 · 5.G.A.2

Problem 1: Axes and origin

- (a) The horizontal axis is the x-axis.
- (b) The vertical axis is the y-axis.
- (c) The axes cross at the origin, $(0,0)$.

(a) x-axis. (b) y-axis. (c) $(0,0)$.

Problem 2: Which number is which

The first number is the x-coordinate and tells the distance right. The second number is the y-coordinate and tells the distance up.

Right: 6. Up: 3.

Problem 3: Read the points

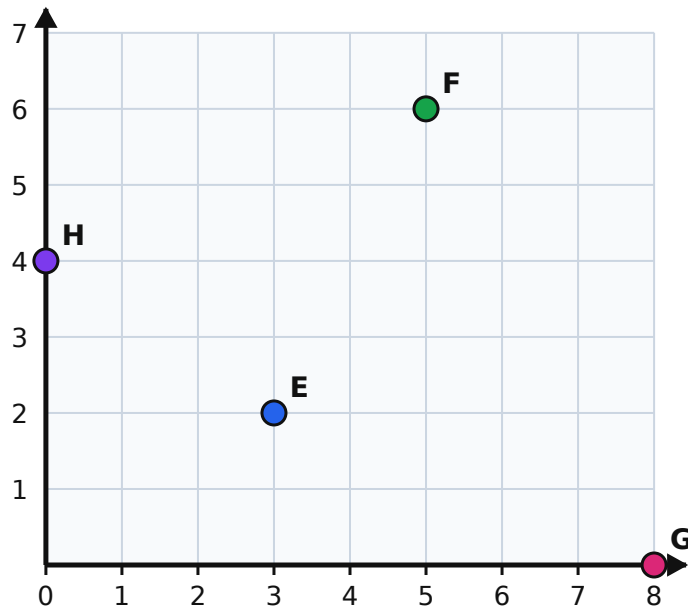
Count right first, then up for each point.

A: 2 right, 5 up gives $(2,5)$. B: 7 right, 1 up gives $(7,1)$. C: 4 right, 4 up gives $(4,4)$. D: 0 right, 6 up gives $(0,6)$, on the y-axis.

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

Problem 4: Plot four points

E: 3 right, 2 up. F: 5 right, 6 up. G: 8 right, 0 up, so it sits on the x-axis. H: 0 right, 4 up, so it sits on the y-axis.



Plotted points E, F, G and H.

See the plotted points. G is on the x-axis and H is on the y-axis.

Problem 5: Points on the axes

A point is on the x-axis when its y-coordinate is 0: $(5,0)$ and $(0,0)$.

A point is on the y-axis when its x-coordinate is 0: $(0,5)$ and $(0,0)$. The point $(3,3)$ is on neither axis.

x-axis: $(5,0)$ and $(0,0)$. **y-axis:** $(0,5)$ and $(0,0)$.

Problem 6: Right and up

Right 4 means the x-coordinate is 4. Up 7 means the y-coordinate is 7.

$(4,7)$

Problem 7: Same numbers, different points

P is $(9,2)$ and Q is $(2,9)$.

The x-coordinates differ (9 and 2) and the y-coordinates differ (2 and 9), so the points are different.

P $(9,2)$, Q $(2,9)$. They are not the same point.

Problem 8: Distance in a row

Both points have y-coordinate 3, so they lie on a horizontal line. Subtract the x-coordinates:
 $7 - 2 = 5$.

5 units

Problem 9: Distance in a column

Both points have x-coordinate 4, so they lie on a vertical line. Subtract the y-coordinates:
 $8 - 1 = 7$.

7 units

Problem 10: Find the missing number

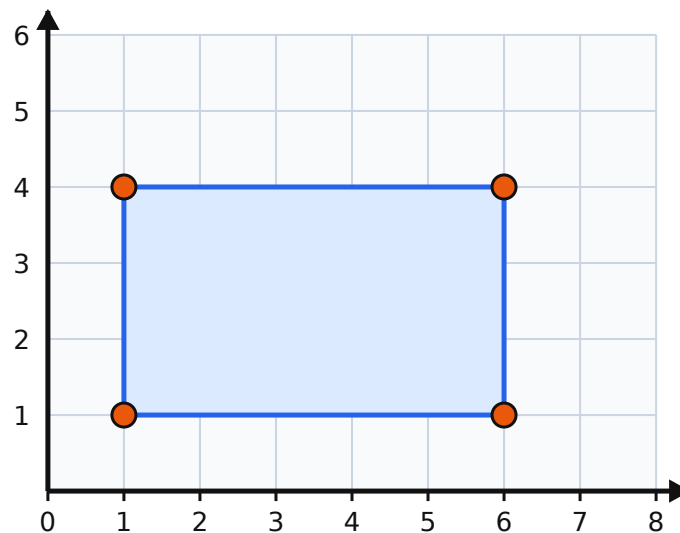
(a) On the y-axis the x-coordinate is 0, so K is $(0,7)$.

(b) On the x-axis the y-coordinate is 0, so M is $(6,0)$.

(a) $(0,7)$. (b) $(6,0)$.

Problem 11: A rectangle on the grid

The shape is a rectangle. The bottom side runs from $x = 1$ to $x = 6$: $6 - 1 = 5$ units. The right side runs from $y = 1$ to $y = 4$: $4 - 1 = 3$ units.

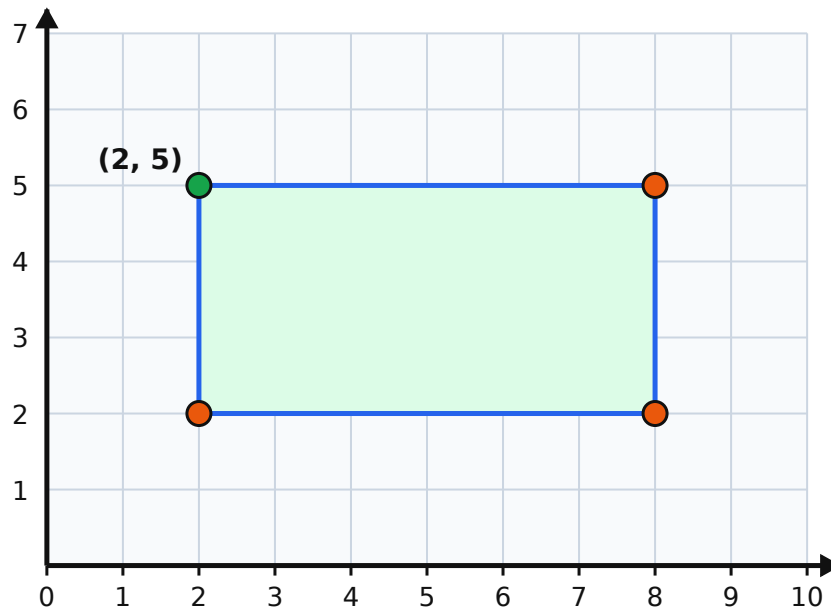


The rectangle is 5 units wide and 3 units tall.

Rectangle; longest side 5 units.

Problem 12: The fourth corner

The fourth corner is on the same vertical line as $(2,2)$ ($x = 2$) and the same horizontal line as $(8,5)$ ($y = 5$).



The fourth corner is $(2, 5)$.

$(2,5)$

Problem 13: Counting by twos

Q is above 6 on the x-axis and level with 10 on the y-axis. R is above 10 and level with 4.

Q $(6,10)$, **R** $(10,4)$.

Problem 14: Blocks on a map

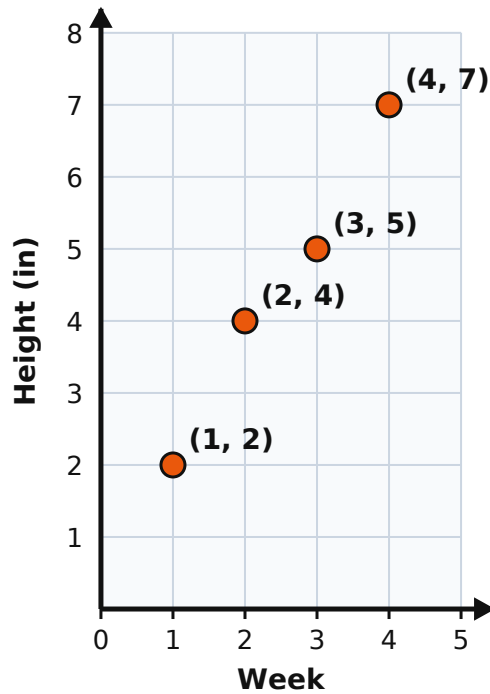
Library $(2,3)$ and Park $(7,3)$ share $y = 3$: $7 - 2 = 5$ blocks.

Park $(7,3)$ and School $(7,6)$ share $x = 7$: $6 - 3 = 3$ blocks.

Library to Park: 5 blocks. Park to School: 3 blocks.

Problem 15: Plant growth data

Write week first and height second: $(1,2)$, $(2,4)$, $(3,5)$, $(4,7)$.



Height of Priya's bean plant.

Points (1,2), (2,4), (3,5), (4,7).

Problem 16: Meaning of a point

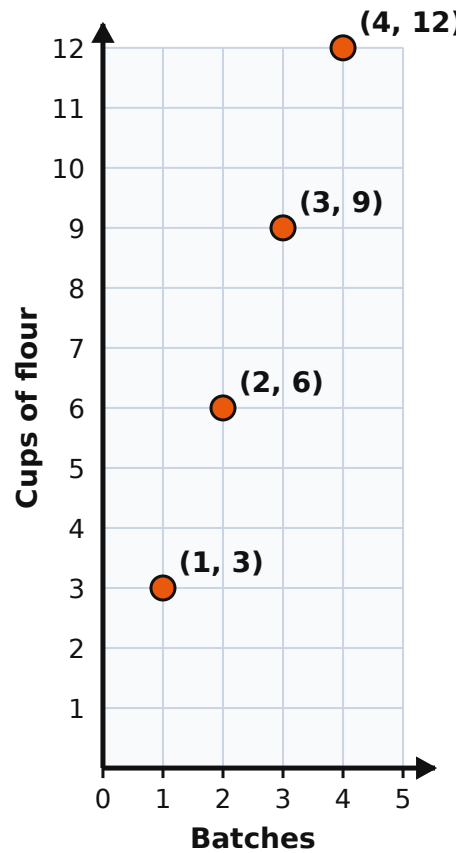
The x-coordinate 3 is hours and the y-coordinate 24 is dollars: 3 hours of babysitting earned \$24.

For 1 hour: $24 \div 3 = 8$ dollars.

3 hours earned \$24; \$8 for 1 hour.

Problem 17: Muffin batches

Cups: 3, 6, 9, 12. Ordered pairs: (1,3), (2,6), (3,9), (4,12).



Cups of flour for batches of muffins.

Points (1,3), (2,6), (3,9), (4,12).

Problem 18: Spot the mistake

Jamal switched the numbers. The x-coordinate (right) must come first, so 7 goes first.

Correct pair: (7,4).

Problem 19: Ethan's walk

Home to Store: $7-2=5$ blocks (same x). Store to Park: $6-1=5$ blocks (same y).

Total: $5+5=10$.

10 blocks

Problem 20: Farmers market loop

A to B: $5-1=4$. B to C: $6-1=5$. C to D: $5-1=4$. D to A: $6-1=5$.

Total: $4+5+4+5=18$.

18 blocks

Problem 21: Diego's savings

Dollars: $25 - 10 = 15$. Weeks: $5 - 2 = 3$.

\$15 more, after 3 weeks.

Problem 22: Hiking trail

Leg 1: $3 - 0 = 3$ miles. Leg 2: $4 - 0 = 4$ miles. Leg 3: $8 - 3 = 5$ miles.

Total: $3 + 4 + 5 = 12$ miles. The end point has y-coordinate 4, so it is 4 miles north of the start.

12 miles; 4 miles north.