Name & Surname: _____ Class: _____ Date: _____

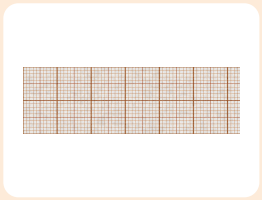
Coordinate Plane Power

Find any point with two numbers!

About 45 minutes Level ★★★☆☆

Map Any Point!

A coordinate plane is made from two **perpendicular** number lines that cross at zero.



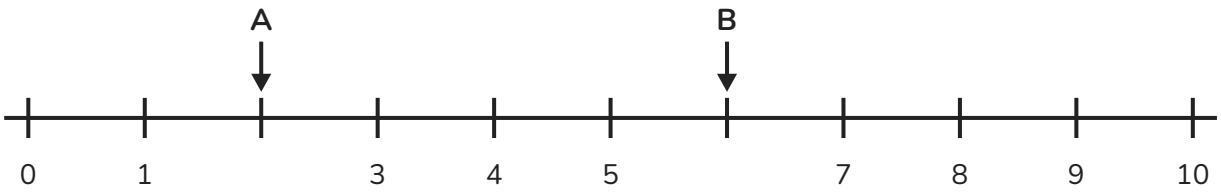
- The across line is the x-axis.
- The up line is the y-axis.
- The crossing point is the **origin** (0,0).
- Every point has **coordinates** (x, y): walk right x from the origin, then up y. For example, (4,1) means right 4, up 1.

↑↓ Task A

/6

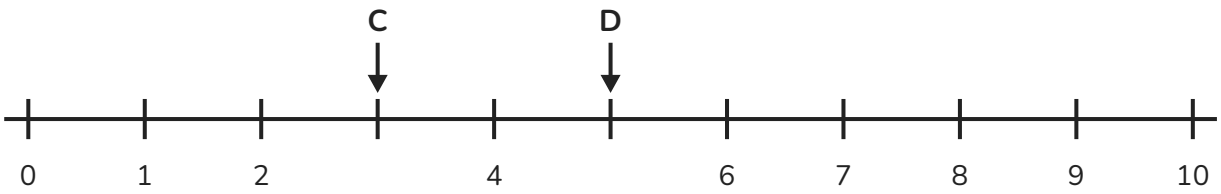
These two number lines are the axes. Read the arrows and mark the dots.

1



A = ☐ B = ☐ Draw an arrow to show: 4

2



C = ☐ D = ☐ Draw an arrow to show: 8

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Read Coordinates Fast

Practice naming axes and reading x- and y-coordinates.

Key words

axis: one of the two number lines

y-axis: the number line that goes up

ordered pair: two numbers in order (x, y)

x-axis: the number line that goes across

origin: the point (0,0) where the axes cross

coordinates: the x and y numbers for a point

Task B

/10

Read the coordinates carefully. Remember order matters!

WARM UP

1 What are the **coordinates** of the origin?

Answer: _____

2 Which **axis** runs left to right?

Answer: _____

3 In (6, 2), what is the **x-coordinate**?

Answer: _____

4 In (6, 2), what is the **y-coordinate**?

Answer: _____

PRACTICE

5 A dot is 4 right and 1 up from the **origin**. Write its ordered pair.

Answer: _____

6 A student swaps (3, 7) to (7, 3). Is it the same **point**? Write yes or no.

Answer: _____

7 Point P is at (9, 5). How many **units** right from the origin is it?

Answer: _____

PROBLEM SOLVING

8 A game board has a star at (2, 5). What does the 5 tell you in **words**?

Answer: _____

9 A garden map shows corn at (1, 8) and beans at (1, 3). How many **units** apart are they straight up and down?

Answer: _____

10 Starter: The first number means across. Finish: Explain why (4, 6) and (6, 4) are different **points**.

Answer: _____

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Spot the Mistake

Find where Student A and Student B went wrong.

Task C

/4

Find the wrong step in each solution. Look for swapped order!



Student A

Plot (4, 2) on the first-quadrant **grid**.

1. Start at the origin (0,0).
2. Move up 4, then right 2.
3. The dot lands at (2, 4).

The mistake is in step: _____

What went wrong?

.....

Correct answer: _____



Student B

A dot is 3 right and 5 up. Write its **coordinates**.

1. The x-coordinate is 3 and the y-coordinate is 5.
2. Write y first: (5, 3).
3. So the answer is (5, 3).

The mistake is in step: _____

What went wrong?

.....

Correct answer: _____

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Plot and Solve

Graph points in the first quadrant to solve puzzles.

Task D

/10

Plot in your head and use the first quadrant to solve.

WARM UP

1 What is the **x-coordinate** of (7, 4)?

Answer: _____

2 What is the **y-coordinate** of (7, 4)?

Answer: _____

3 Which **ordered pair** is the origin?

Answer: _____

PRACTICE

4 A sticker is at (0, 6). Is it on an **axis**? Write yes or no.

Answer: _____

5 List the **coordinates** of the point 8 right and 2 up.

Answer: _____

6 Points R (2, 3) and S (2, 9) share the same x. How many **units** apart are they?

Answer: _____

PROBLEM SOLVING

7 A classroom map has a bookshelf at (3, 1), a desk at (3, 4), and a plant at (6, 1). If you join them in order, what **shape** do you get?

Answer: _____

8 A game token moves from (5, 5) zero right and 3 up. What are its new **coordinates**?

Answer: _____

9 A garden row has carrots at (4, 2) and (9, 2). How long is the **row** in units?

Answer: _____

10 A student says (5, 0) is not on the plane because y is zero. Explain why the **student** is wrong.

Answer: _____

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Ask and Draw

Make up questions and plot a mystery shape.

Task E

The answer is given. Write a question that fits it.

The answer is: **(0,0)**

What could the question be?

The answer is: **(4,1)**

What could the question be?

The answer is: **x-axis**

What could the question be?

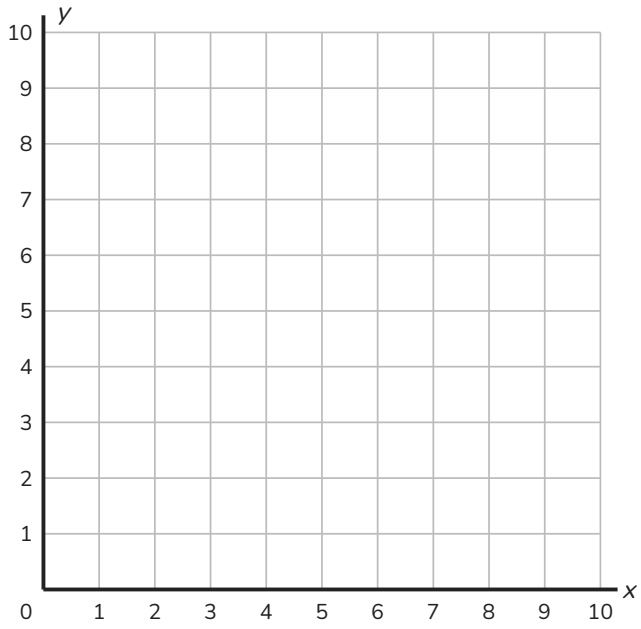
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Coordinate Plane Power

Task F

/5

Plot the points in order and join them. What shape appears?



A (2, 2)

B (8, 2)

C (8, 6)

D (2, 6)

Join the points in order to make a shape. What shape have you made?

Shape: _____

How did I do?

Circle a face for each line.

I can name the x-axis, y-axis, and origin.	☹	😐	☺
I can read and plot (x, y) in the first quadrant.	☹	😐	☺
I can explain why order matters in an ordered pair.	☹	😐	☺

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Answer sheet: Coordinate Plane Power

Task A

1. A = 2; B = 6; arrows at 4
2. C = 3; D = 5; arrows at 8

Task B

1. (0,0)
2. x-axis
3. 6
4. 2
5. (4,1)
6. no
7. 9
8. 5 units up
9. 5
10. The first number is across and the second is up, so they land in different places.

Task C

1. Step 2 is wrong: They moved up first, then across. You must go right along the x-axis first, then up. Correct answer: (4,2)
2. Step 2 is wrong: They swapped the order. The x-coordinate always comes first, so it should be (3, 5). Correct answer: (3,5)

Task D

1. 7
2. 4
3. (0,0)
4. yes
5. (8,2)
6. 6
7. right-angled triangle
8. (5,8)
9. 5
10. Points with zero are still on the plane on an axis. (5, 0) is 5 right on the x-axis.

Task E

Answers will vary, e.g. (0,0) → What are the coordinates of the origin? (4,1) → What point is 4 right and 1 up from the origin? x-axis → Which axis runs left to right?

Task F

A (2, 2), B (8, 2), C (8, 6), D (2, 6). The shape is a rectangle.

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