DraftKids
Learn through sports

PRINTABLE · GRADES 3-5 · AGES 8-11

Puck Path Coordinates

Two made-up hockey teams are on the ice, and we laid a grid over the rink. Every spot has an ordered pair: count **right** first, then **up**. Use the rink grid to answer each question.

Name _____

Date _____

COORDINATE TOOLKIT

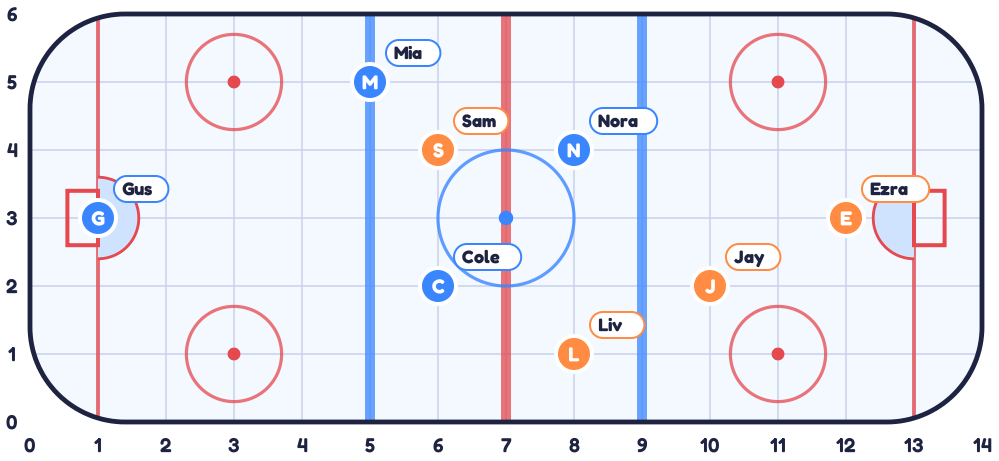
Ordered pair	x-coordinate	y-coordinate	Origin	Axis
(x, y): two numbers that name a point	first number: how far right	second number: how far up	the corner point (0, 0)	a number line along an edge

(3, 2) 3 right then 2 up

always start at (0, 0)

RIGHT FIRST, THEN UP

THE RINK GRID · 1 SQUARE = 1 UNIT



Pine Ridge Polar Bears · Lakeview Lynx · red: center line & goal lines · blue: blue lines at x = 5 and x = 9

ROOKIE

1 What ordered pair shows where **Mia** is standing?

WORK SPACE

(____ , ____)

ROOKIE

2 Which player is standing at **(8, 4)**?

WORK SPACE

_____

STARTER

3 The puck drops at the **center faceoff dot**. Write its ordered pair.

WORK SPACE

(____ , ____)

STARTER

4 Cole skates straight to the **right 4 units**. Whose spot does he reach?

WORK SPACE

_____

PRO

5 Nora and Liv have the same x-coordinate. How many units apart are they?

WORK SPACE

_____ units

PRO

6 Which players are past the right blue line, where the x-coordinate is **greater than 9**?

WORK SPACE

_____

ALL-STAR

7 Mia passes the puck **3 units right** and **1 unit down**. Which player gets the pass? Is it a teammate?

WORK SPACE

_____ yes / no

CHALLENGE ★

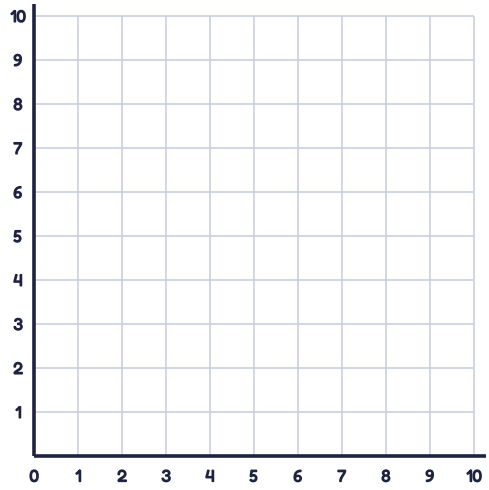
8 Challenge: A player's x-coordinate is **2 more** than the y-coordinate, and the two numbers **add up to 10**. Who is it?

WORK SPACE

_____

A Plot the Penalty Box

Plot each point on the grid and label it. Connect A to B to C to D to A, then check it off.



POINT	PAIR	✓
A	(2, 2)	☐
B	(2, 6)	☐
C	(8, 6)	☐
D	(8, 2)	☐

1. What shape did you draw?

   _____

2. How many units long is side **BC**? How many units long is side **AB**?

   BC _____ **AB** _____

3. Players in the penalty box sit inside this shape. What is its **perimeter**?

   _____ **units**

B Shooting Drill Pattern

Coach's drill has two rules. **Pucks:** start at 0, add 3 each round. **Seconds:** start at 0, add 6 each round. Finish the table.

ROUND	PUCKS SHOT (x)	SECONDS (y)	ORDERED PAIR
Round 0	0	0	(0, 0)
Round 1	3	6	(3, 6)
Round 2			
Round 3			
Round 4			
Round 5			

1. Look at each pair. The y-number is always ____ times the x-number.

   _____ **times**

2. If the pattern keeps going, what ordered pair would **Round 10** be?

   (_____ , _____)

C Corner Finder

Sketch it on the grid in Part A if it helps. Rectangles have square corners, so their sides line up with the grid.

1. A faceoff box is a rectangle with corners at (1, 1), (1, 4) and (6, 4). Where is the **fourth corner**?

   (_____ , _____)

2. A square has corners at (2, 3), (5, 3) and (5, 6). Where is the **fourth corner**?

   (_____ , _____)

3. A puck sits at (3, 7). A skater at (3, 2) skates straight up to it. How many units does she skate?

   _____ **units**

BONUS · NOT SCORED

Draw your own play on the rink grid on page 1. Write the ordered pairs for where the puck starts and where it ends up. Can a friend follow it?

Answer Key (for teachers & parents)

Answers for **Puck Path Coordinates**, with the work shown. Print pages 1 and 2 for students and keep this page for checking. Teams and players are made up. A real hockey rink has a red center line, two blue lines and five faceoff circles; our grid is simplified for counting.

Page 1 Problems

1. Answer: **(5, 5)**
   5 right, 5 up
2. Answer: **Nora**
   8 right, 4 up
3. Answer: **(7, 3)**
   center line x = 7, halfway up the 6-unit rink
4. Answer: **Jay**
   (6, 2) to (10, 2)
5. Answer: **3 units**
   4 − 1 = 3
6. Answer: **Jay and Ezra**
   Jay (10, 2), Ezra (12, 3)
7. Answer: **Nora; yes**
   (5, 5) to (8, 4); both are Polar Bears
8. Answer: **Sam**
   (6, 4): 6 = 4 + 2 and 6 + 4 = 10

A · Plot the Penalty Box

1. Answer: **Rectangle**
   4 square corners, opposite sides equal
2. Answer: **BC = 6, AB = 4**
   8 − 2 = 6; 6 − 2 = 4
3. Answer: **20 units**
   6 + 4 + 6 + 4 = 20

Plotting: 1 point for all four points correct and connected.

Quick score

Page 1 problems (#8 = 2)	_____ / 9
A · Plot + 3 questions	_____ / 4
B · Table + 2 questions	_____ / 4
C · Corner Finder	_____ / 3
Total	**_____ / 20**

Skills practiced

Ordered pairs · Plotting points · x- and y-coordinates · First quadrant · Two-rule patterns · Perimeter · Distance on a grid · Rectangles & squares

Teaching tip: Say "walk the hallway, then take the stairs": go right along the x-axis first, then up. Tape a grid on the floor and let kids skate their sneakers to each ordered pair.

B · Shooting Drill Pattern

Table: Answer: **(6, 12), (9, 18), (12, 24), (15, 30)**
rounds 2–5: add 3 to x and 6 to y each time

1. Answer: **2 times**
   6 ÷ 3 = 2, 12 ÷ 6 = 2 …
2. Answer: **(30, 60)**
   3 × 10 = 30, 6 × 10 = 60

C · Corner Finder

1. Answer: **(6, 1)**
   x of (6, 4), y of (1, 1)
2. Answer: **(2, 6)**
   each side is 3 units
3. Answer: **5 units**
   7 − 2 = 5

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