Task Model 1a

Response Type: Multiple Choice, single correct response

DOK Level 1

5.G.A.1
Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).

Evidence Required:
1. The student interprets coordinate values of points graphed on a coordinate plane, or in the context of a given situation.

Tools: None

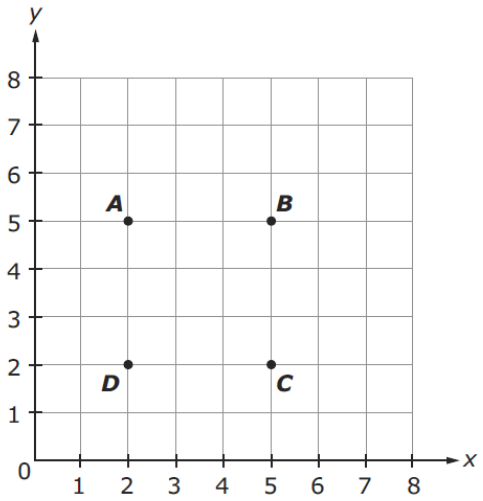
Accessibility Note:
Minimize extra, unnecessary grid space.

Prompt Feature: The student is prompted to identify the location of points in the first quadrant of the coordinate plane.

Stimulus Guidelines:
- First quadrant only, positive numbers.
- Item difficulty can be adjusted via these example methods:
  - Generate coordinate pairs using whole-number coordinate pairs with whole-number axis increments.
  - Identify an incorrectly plotted point.
  - Identify coordinate pairs where one term is a whole number and one is a fraction on a grid with whole-number axis increments.
- Misreading the numbers should not be used for distractors as this is a bias issue for visually impaired students.
- Construct coordinate grids so that unnecessary space is eliminated and the ordered pairs are easily discernable.

TM1a
Stimulus: The student is presented with a mathematical context that involves points using whole-number coordinate pairs with unit axis increments.

Example Stem: Use the graph to answer the question.



Which point is located at (5, 2)?

A. Point *A*
B. Point *B*
C. Point *C*
D. Point *D*

Rubric: (1 point) The student correctly identifies the point located at the given coordinate (e.g., C).

Response Type: Multiple Choice, single correct response

Task Model 1b

Response Type: Multiple Choice, single correct response

DOK Level 1

5.G.A.1
Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).

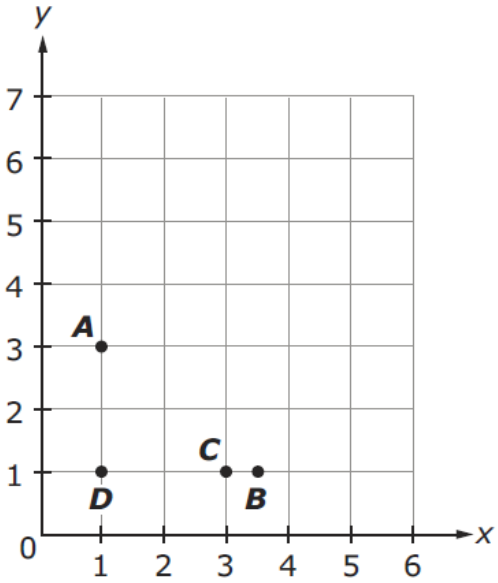
Evidence Required:
1. The student interprets coordinate values of points graphed on a coordinate plane, or in the context of a given situation.

Tools: None

Accessibility Note:
Minimize extra, unnecessary grid space.

TM1b
Stimulus: The student is presented with a mathematical context that involves points using coordinate pairs where one term is a whole number and one is a fraction on a grid with whole-number increments.

Example Stem: Use the graph to answer the question.

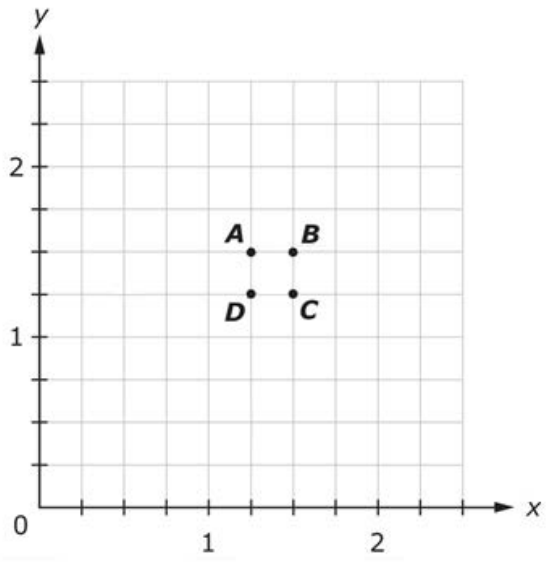


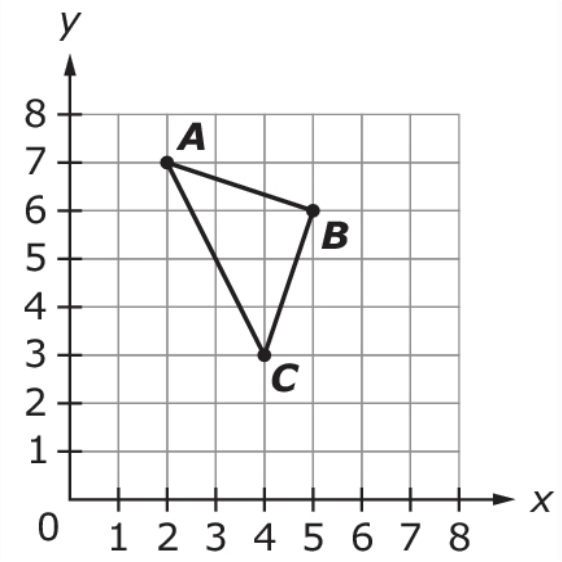
Which point is located at $(3\frac{1}{2}, 1)$?

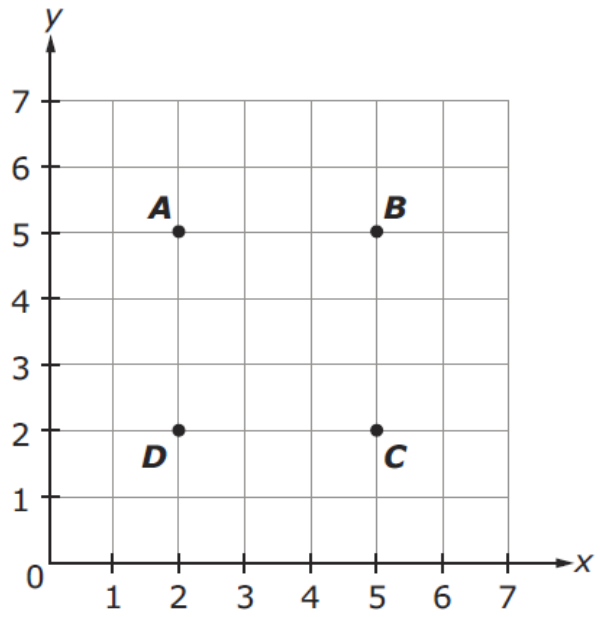
A. Point *A*
B. Point *B*
C. Point *C*
D. Point *D*

Rubric: (1 point) The student correctly identifies the point located at the given coordinate (e.g., B).

Response Type: Multiple Choice, single correct response

Task Model 1c **Response Type: Multiple Choice, single correct response** **DOK Level 1** **5.G.A.1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate). **Evidence Required:** 1. The student interprets coordinate values of points graphed on a coordinate plane, or in the context of a given situation. **Tools:** None **Accessibility Note:** Minimize extra, unnecessary grid space.	**TM1c** **Stimulus:** The student is presented with a mathematical context that involves points using coordinate pairs where both terms are fractions on a grid with fractional axis increments. **Example Stem:** Use the graph to answer the question.  Which point is located at $(1\frac{1}{2}, 1\frac{1}{4})$? A. Point *A* B. Point *B* C. Point *C* D. Point *D* **Rubric:** (1 point) The student correctly identifies the point located at the given coordinate (e.g., C). **Response Type:** Multiple Choice, single correct response

Task Model 1d **Response Type: Multiple Choice, single correct response** **DOK Level 1** **5.G.A.1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate). **Evidence Required:** 1. The student interprets coordinate values of points graphed on a coordinate plane, or in the context of a given situation. **Tools:** None **Accessibility Note:** Minimize extra, unnecessary grid space.	**TM1d** **Stimulus:** The student is presented with a mathematical context that involves three to four points in the first quadrant of the coordinate plane. **Example Stem:** Use the graph to answer the question.  Which set of ordered pairs shows the coordinates of points *A*, *B*, and *C*? A. (7, 2), (6, 5), (3, 4) B. (7, 2), (5, 6), (3, 3) C. (2, 7), (5, 6), (4, 3) D. (2, 7), (6, 5), (4, 3) **Rubric:** (1 point) The student correctly identifies the ordered pairs for the figure (e.g., C). **Response Type:** Multiple Choice, single correct response

Task Model 1e **Response Type: Multiple Choice, single correct response** **DOK Level 1** **5.G.A.1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate). **Evidence Required:** 1. The student interprets coordinate values of points graphed on a coordinate plane, or in the context of a given situation. **Tools:** None **Accessibility Note:** Minimize extra, unnecessary grid space.	**TM1e** **Stimulus:** The student is presented with a mathematical context that involves points using whole-number coordinate pairs with unit axis increments. **Example Stem:** A student plots the following points: • Point *A* (2, 5) • Point *B* (6, 5) • Point *C* (5, 2) • Point *D* (2, 2)  Which point was **not** plotted correctly? A. Point *A* B. Point *B* C. Point *C* D. Point *D* **Rubric:** (1 point) The student correctly identifies the point that is incorrectly plotted (e.g., B). **Response Type:** Multiple Choice, single correct response

Task Model 1f

Response Type:
Hot Spot

DOK Level 1

5.G.A.1
Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).

Evidence Required:
1. The student interprets coordinate values of points graphed on a coordinate plane, or in the context of a given situation.

Tools: None

Accessibility Note:
Hot spot items are not currently able to be Brailled. Minimize the number of items developed to this TM.

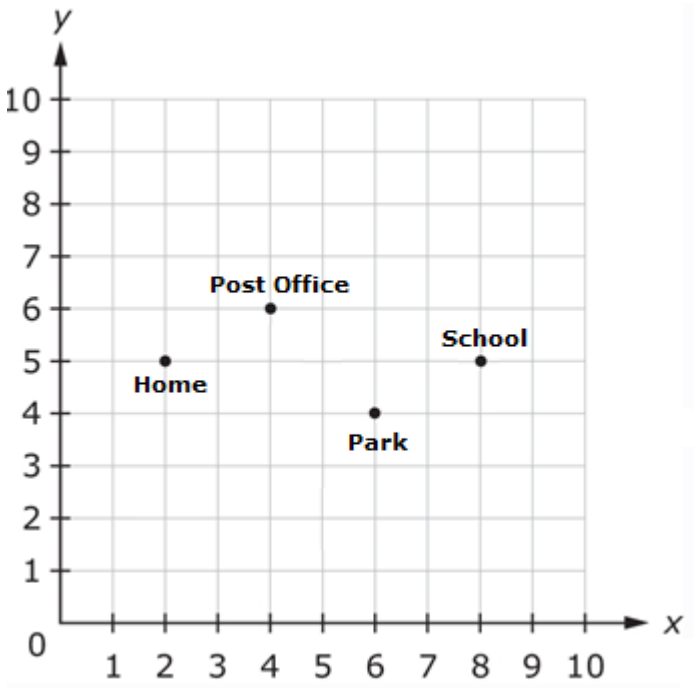
Prompt Feature: The student is prompted to identify the location of points in the first quadrant of the coordinate plane.

Stimulus Guidelines:

- First quadrant only, positive numbers.
- Item difficulty can be adjusted via these example methods:
  - Generate coordinate pairs using whole-number coordinate pairs with whole-number axis increments.
  - Identify coordinate pairs where one term is a whole number and one is a fraction on a grid with whole-number axis increments.
  - Generate coordinate pairs on a grid with fractional axis increments.
- Misreading the numbers should not be used for distractors as this is a bias issue for visually impaired students.

TM1f
Stimulus: The student is presented with a real-world context that involves points using whole-number coordinate pairs with unit axis increments.

Example Stem: The graph shows the locations of Nina's home, the park, her school, and the post office.



Select the numbers to create the coordinate pair that represents the location of the post office.

Task Model 1f

Response Type:
Hot Spot

DOK Level 1

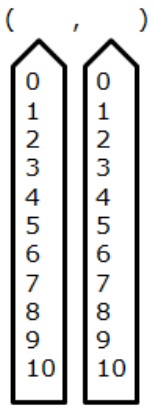
5.G.A.1
Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).

Evidence Required:
1. The student interprets coordinate values of points graphed on a coordinate plane, or in the context of a given situation.

Tools: None

Accessibility Note:
Hot spot items are not currently able to be Brailled. Minimize the number of items developed to this TM.

TM1f (continued)



Rubric: (1 point) The student selects the correct numbers for the coordinate pair indicated [e.g., (4, 6)].

Response Type: Hot Spot

Task Model 1g

Response Type:
Drag and Drop

DOK Level 1

5.G.A.1
Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).

Evidence Required:
1. The student interprets coordinate values of points graphed on a coordinate plane, or in the context of a given situation.

Tools: None

Accessibility Note:
Drag and Drop items are not currently able to be Brailled. Minimize the number of items developed to this TM.

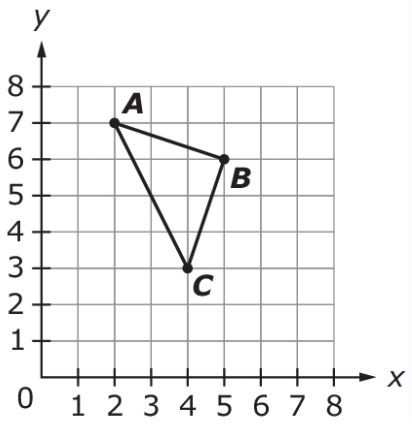
Prompt Feature: The student is prompted to identify the location of points in the first quadrant of the coordinate plane.

Stimulus Guidelines:

- First quadrant only, positive numbers.
- Item difficulty can be adjusted via these example methods:
  - Generate coordinate pairs using whole-number coordinate pairs with whole-number axis increments.
  - Identify coordinate pairs where one term is a whole number and one is a fraction on a grid with whole-number axis increments.
  - Generate coordinate pairs on a grid with fractional axis increments.
- Misreading the numbers should not be used for distractors as this is a bias issue for visually impaired students.

TM1g
Stimulus: The student is presented with a mathematical context that involves three to four points in the first quadrant of the coordinate plane.

Example Stem: Use the graph to complete the problem.



Drag numbers from the palette to show the coordinates of points *A*, *B*, and *C*.

Point *A*: (□, □) Point *B*: (□, □) Point *C*: (□, □)

Rubric: (1 point) The student correctly creates all three coordinate pairs [e.g., Point *A*: (2, 7), Point *B*: (5, 6), Point *C*: (4, 3)].

Response Type: Drag and Drop

Task Model 2

Response Type: Graphing

DOK Level 1

5.G.A.2
Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Evidence Required:
2. The student graphs points on the coordinate plane representing real-world or mathematical problems.

Tools: None

Accessibility Note:
Graphing items are not currently able to be Brailled. Minimize the number of items developed to this TM.

Prompt Feature: The student is prompted to graph points in the first quadrant of the coordinate plane.

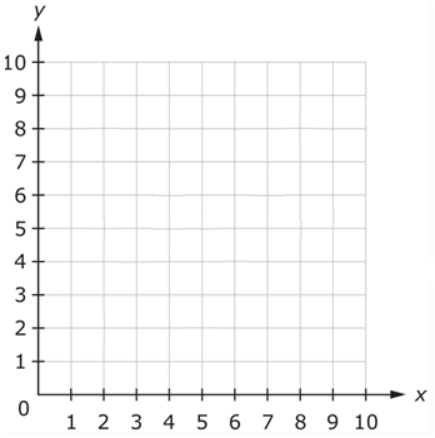
Stimulus Guidelines:

- All numbers should be changed to create new items.
- First quadrant only, positive numbers.
- Item difficulty can be adjusted via these example methods:
  - Whole-number coordinate pairs with whole-number axis increments
  - Coordinate pairs where one coordinate is a whole number and one is a fraction on a grid with whole-number increments
  - Coordinate pairs where both coordinates are fractions on a grid with fractional axis increments

TM2
Stimulus: The student is presented with a mathematical problem that involves two to three points in the first quadrant of the coordinate plane.

Example Stem 1: Use the Add Point tool to plot each point on the coordinate plane.

Part A: Plot the point (2, 8).
Part B: Plot the point (4, 5).
Part C: Plot the point (7, 6).

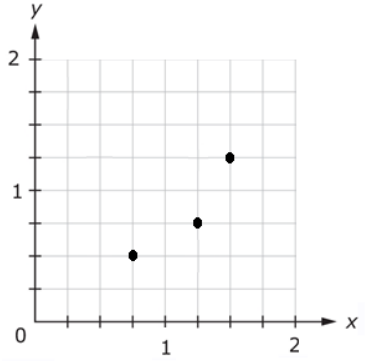


Rubric: (1 point) The student correctly plots all three points on the coordinate grid.

Response Type: Graphing

Example Stem 2: Use the Add Point tool to plot each point on the coordinate plane.

Part A: Plot the point $(7, 6\frac{1}{2})$.
Part B: Plot the point $(4, 5\frac{1}{2})$.

Task Model 2 **Response Type: Graphing** **DOK Level 1** **5.G.A.2** Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. **Evidence Required:** 2. The student graphs points on the coordinate plane representing real-world or mathematical problems. **Tools:** None **Accessibility Note:** Graphing items are not currently able to be Brailled. Minimize the number of items developed to this TM.	**Rubric:** (1 point) The student correctly plots both points on the coordinate grid. **Response Type:** Graphing **Example Stem 3:** Use the Add Point tool to plot each point on the coordinate plane. Part A: Plot the point $(1\frac{1}{4}, \frac{3}{4})$. Part B: Plot the point $(1\frac{1}{2}, 1\frac{1}{4})$. Part C: Plot the point $(\frac{3}{4}, \frac{1}{2})$. **Rubric:** (1 point) The student correctly plots all three points on the coordinate grid (see below).  **Response Type:** Graphing