Unit: $5^{\text {th }}$ - Coordinate Plane
Lesson: 5.8.C - Graphing in the First Quadrant Problem Set 1


1. Jim plotted the following ordered pairs on a coordinate grid. $(1,3)(3,6)(7,6)(9,3)$


Jim connected the points with line segments to form a polygon. Which point is located inside the polygon?
A. $(4,5)$
B. $(8,6)$
C. $(5,7)$
D. $(3,1)$
2. There are two shapes drawn on the coordinate grid, as shown.


Which ordered pair represents a point that is inside both shapes?
A. $(3.5,5.5)$
B. $(5.5,3.5)$
C. $(4.5,2.5)$
D. $(2.5,4.5)$
3. The graph shows three of the four vertices of a parallelogram VWXY.


At which location on the coordinate grid could point $Y$ be located?
A. $(7,3.5)$
B. $(5.5,2.5)$
C. $(6.5,1.5)$
D. $(2,6.5)$
4. A table of ordered pairs is shown.

| $\boldsymbol{x}$ | $1 \frac{1}{2}$ | $2^{1 / 2}$ | $3 \frac{1}{2}$ | $4 \frac{1}{2}$ | $51 / 2$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 1 | 2 | 3 | 4 | $51 / 2$ |

Which Graph best represents these ordered pairs?
A

C

B


5. The ordered pairs below represent three vertices of a trapezoid.
$(2,1),(4,4),(4,6)$


Which ordered pair could represent the fourth vertex of this trapezoid?
A. $(4,5)$
B. $(10,9)$
C. $(2,9)$
D. $(4,1)$
6. Jane plotted the following ordered pairs on a coordinate grid. $(2,5)(3,8)(8,8)(7,5)$


Jane connected the points with line segments to form a polygon. Which point is located inside the polygon?
A. $(2,7)$
B. $(3,4)$
C. $(8,5)$
D. $(5,6)$
7. There are two shapes drawn on the coordinate grid, as shown.


Which ordered pair represents a point that is inside the square, but not in the Hexagon?
A. $(3.5,5.5)$
B. $(5.5,3.5)$
C. $(4.5,6.5)$
D. $(2.5,4.5)$
8. A table of ordered pairs is shown.

| $\boldsymbol{x}$ | $1 \frac{1}{2}$ | $2^{1 / 2}$ | $3 \frac{1}{2}$ | $5 \frac{1}{2}$ | $6 \frac{1}{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 1 | 2 | 3 | 5 | $6 \frac{1}{2}$ |

Which Graph best represents these ordered pairs?
A

C

B



Unit: $5^{\text {th }}$ - Coordinate Plane
Lesson: 5.8.C - Graphing in the First Quadrant Problem Set 2

9. The ordered pairs below represent the location of four people.

| Morris | $(6,5)$ |
| :--- | :--- |
| Pamela | $(9,10)$ |
| Sherman | $(7,0)$ |
| Sylvia | $(1,1)$ |



Frankie is located at $(7,7)$. Based on this information, which statement is true?
A. Frankie is located 5 units south of Pamela.
B. Frankie is located 3 units east and 2 units north of Sherman.
C. Frankie is located 5 units south and 1 unit east of Morris.
D. Frankie is located 1 unit east and 2 units north of Sylvia.
10. Henrietta used a number machine to create ordered pairs of numbers. Each number he put into the machine, $x$, came out a different number, $y$, based on a rule. Some ordered pairs from Henrietta's machine are shown.


Which graph best represents the ordered pairs from Henrietta's number machine?
A.
B.
C.
D.




11. The ordered pairs below represent three vertices of a rhombus.
$(6,7)(4,5)(8,5)$


Which ordered pair could represent the fourth vertex of this rhombus?
A. $(7,2)$
B. $(6,3)$
C. $(2,9)$
D. $(2,7)$
12. Thomas planted a seed and measured the height of the stem each week for four weeks.

- The stem grew 1 inch the first week.
- The stem grew 2 inches each week after the first week.

Which graph represents the growth of this plant?

Plant Growth


Plant Growth


Plant Growth


Plant Growth

13. Eye patches at the Pirate Emporium cost 3 for a dollar. The table shows the relationship between the numbers of eye patches customers bought and the total cost of the eye patches in dollars.

| Number of eye <br> patches, $x$ | Total cost, $y$ <br> (dollars) |
| :---: | :---: |
| 3 | 1.00 |
| 6 | 2.00 |
| 9 | 3.00 |
| 12 | 4.00 |

A.

B.

D.

14. The ordered pairs below represent three vertices of a rhombus.
$(4,9),(6,7),(4,5)$


Which ordered pair could represent the tourth vertex ot this rhombus?
A. $(7,2)$
B. $(9,7)$
C. $(2,9)$
D. $(2,7)$
15. A table of ordered pairs is shown.

| $x$ | $2 \frac{1}{2}$ | $3 \frac{1}{2}$ | $4 \frac{1}{2}$ | $5 \frac{1}{2}$ | $6 \frac{1}{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | 5 | 7 | 9 | 11 | 13 |

Which graph represents these ordered pairs?

B.

C.

D.

16. Maureen planted a seed and measured the height of the stem each week for four weeks.

- The stem grew 2 inches the first week.
- The stem grew 1 inches each week after the first week.

Which graph represents the growth of this plant?

Plant Growth


Plant Growth


Plant Growth


Plant Growth


Unit: $5^{\text {th }}$ - Coordinate Plane
Lesson: 5.8.C - Graphing in the First Quadrant Problem Set 3

17. The ordered pairs below represent three vertices of a rhombus.
$(5,7)(5,3)(3,5)$


Which ordered pair could represent the fourth vertex of this rhombus?
A. $(7,5)$
B. $(6,3)$
C. $(2,9)$
D. $(2,7)$
18. The ordered pairs below represent the location of four people.

| Murray | $(7,3)$ |
| :--- | :--- |
| Patrice | $(4,6)$ |
| Millicent | $(8,5)$ |
| Alvin | $(9,3)$ |




S

Fiona is located at $(6,5)$. Based on this information, which statement is true?
A. Fiona is located 5 units east and 1 unit south from Patrice.
B. Fiona is located 2 units north and 1 unit west from Murray.
C. Fiona is located 2 units south and 1 unit west of Millicent.
D. Fiona is located 2 units west of Alvin.
19. A table of ordered pairs is shown.

| $x$ | $1 \frac{1}{2}$ | $2 \frac{1}{2}$ | $3 \frac{1}{2}$ | $4 \frac{1}{2}$ | $5 \frac{1}{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | 6 | 8 | 10 | 12 | 14 |

Which graph represents these ordered pairs?
A.

B.

C.

D.

20. Three points are plotted on the coordinate grid.


Which table represents the data plotted in the graph?
A.

| $x$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{18}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{3}{2}$ | $\frac{9}{2}$ | $\frac{15}{2}$ |

C.

| $x$ | $\frac{3}{2}$ | $\frac{6}{2}$ | $\frac{9}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{18}{2}$ |

B.

| $x$ | $\frac{3}{2}$ | $\frac{9}{2}$ | $\frac{15}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{15}{2}$ |

D.

| $x$ | $\frac{3}{2}$ | $\frac{9}{2}$ | $\frac{15}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{18}{2}$ |

21. Lizard Guts at the Witch Supply Store cost 2.50 an ounce. The table shows the relationship between the numbers of ounces of Lizard Guts customers bought and the total cost of the guts in dollars.

| Number of <br> ounces of guts, $x$ | Total cost, $y$ <br> (dollars) |
| :---: | :---: |
| 1 | 2.50 |
| 2 | 5.00 |
| 3 | 7.50 |
| 4 | 10.00 |

A.

B.


Lizard Guts
C.

D.

22. The graph shows three of the four vertices of a parallelogram VWXY.


At which location on the coordinate grid could point $Y$ be located?
A. $(1.5,6.5)$
B. $(6.5,2)$
C. $(6.5,1.5)$
D. $(2,6.5)$
23. Three points are plotted on the coordinate grid.


Which table represents the data plotted in the graph?
A.

| $x$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{18}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{3}{2}$ | $\frac{9}{2}$ | $\frac{15}{2}$ |

C.

| $x$ | $\frac{3}{2}$ | $\frac{6}{2}$ | $\frac{9}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{18}{2}$ |

B.

| $x$ | $\frac{3}{2}$ | $\frac{9}{2}$ | $\frac{15}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{15}{2}$ |

D.

| $x$ | $\frac{3}{2}$ | $\frac{9}{2}$ | $\frac{15}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{18}{2}$ |

24. Henry used a number machine to create ordered pairs of numbers. Each number he put into the machine, $x$, came out a different number, $y$, based on a rule. Some ordered pairs from Henry's machine are shown.


Which graph best represents the ordered pairs from Henry's number machine?
A.
B.
C.
D.





Unit: $5^{\text {th }}$ - Coordinate Plane
Lesson: 5.8.C - Graphing in the First Quadrant Problem Set 4

25. Martin plotted the following ordered pairs on a coordinate grid. 1,3$)(3,5)(5,3)(3,1)$


Martin connected the points with line segments to form a polygon. Which point is located inside the polygon?
A. $(3,6)$
B. $(2,1)$
C. $(4,5)$
D. $(4,3)$
26. The graph shows three of the four vertices of a parallelogram VWXY.


At which location on the coordinate grid could point $Y$ be located?
A. $(1.5,6.5)$
B. $(5.5,2.5)$
C. $(6.5,1.5)$
D. $(2,6.5)$
27. The ordered pairs below represent three vertices of a trapezoid.
$(4,7)(7,7)(3,5)$


Which ordered pair could represent the fourth vertex of this trapezoid?
A. $(4,5)$
B. $(8,5)$
C. $(2,9)$
D. $(4,1)$
28. Three points are plotted on the coordinate grid.


Which table represents the data plotted in the graph?
A.

| $x$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{18}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{3}{2}$ | $\frac{9}{2}$ | $\frac{15}{2}$ |

C.

| $x$ | $\frac{3}{2}$ | $\frac{6}{2}$ | $\frac{9}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{18}{2}$ |

B.

| $x$ | $\frac{3}{2}$ | $\frac{9}{2}$ | $\frac{15}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{15}{2}$ |

D.

| $x$ | $\frac{3}{2}$ | $\frac{9}{2}$ | $\frac{15}{2}$ |
| :---: | :---: | :---: | :---: |
| $y$ | $\frac{6}{2}$ | $\frac{12}{2}$ | $\frac{18}{2}$ |

29. The ordered pairs below represent the location of four people.

| Nathan | $(6,5)$ |
| :--- | :--- |
| Denise | $(9,10)$ |
| Wade | $(7,0)$ |
| Urvasi | $(1,1)$ |




S

Paula is located at $(7,7)$. Based on this information, which statement is true?
A. Paula is located 1 unit south and 2 units east from Nathan.
B. Paula is located 7 units east from Wade.
C. Paula is located 3 units south and 2 units west of Denise.
D. Paula is located 6 units west from Urvasi.
30. The table shows the relationship between the numbers of soft pretzels customers bought at a store and the total cost of the pretzels in dollars. Which graph best represents the data on the table?

| Number of Soft <br> Pretzels, $x$ | Total cost, $y$ <br> (dollars) |
| :---: | :---: |
| 1 | 3.50 |
| 2 | 7.00 |
| 3 | 10.50 |
| 4 | 14.00 |

A.

B.

C.

D.

31. The ordered pairs below represent three vertices of a trapezoid.
$(3,7)(6,8)(3,3)$


Which ordered pair could represent the fourth vertex of this trapezoid?
A. $(4,5)$
B. $(8,5)$
C. $(2,9)$
D. $(6,2)$
32. There are two shapes drawn on the coordinate grid, as shown.


Which ordered pair represents a point that is inside both shapes?
A. $(7.5,3.5)$
B. $(5.5,5.5)$
C. $(7,6)$
D. $(8,4)$

