

Topic B Quiz Prep (Lessons 5 – 9)

Item 1: Look at the patterns within the x and y coordinates and between the x and y coordinates.

Reference your LEARN book page 85.

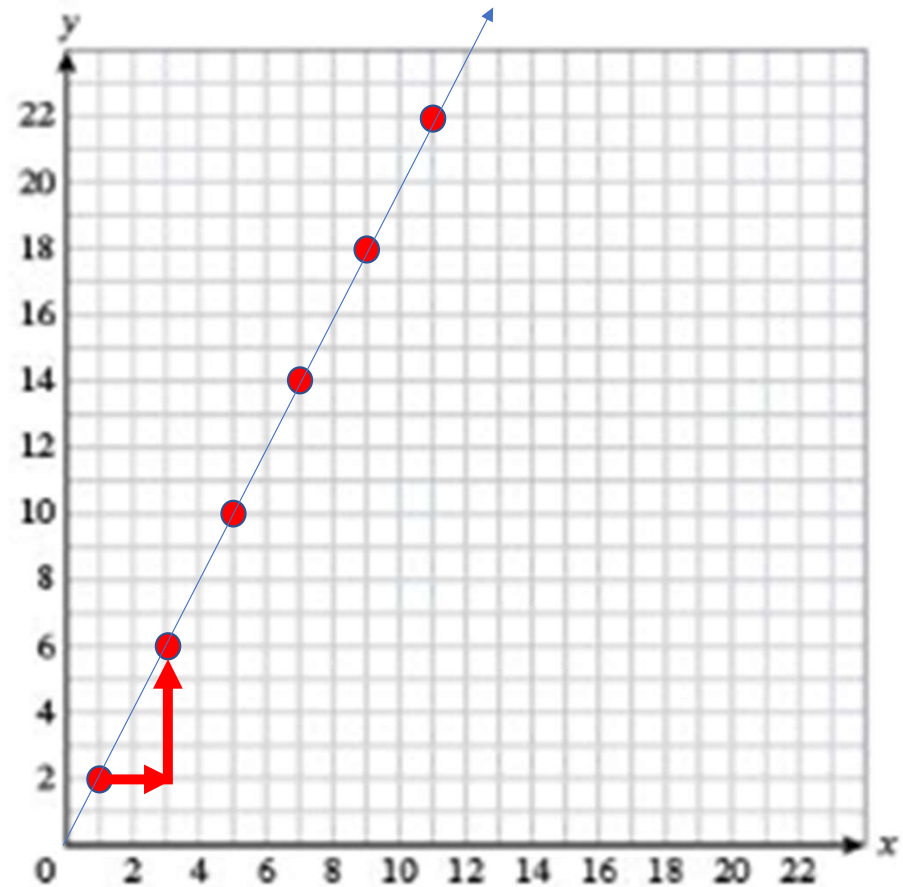
How would these points appear in the coordinate plane.

x rule: Add 2

y rule: Add 4

x-Coordinate	y-Coordinate	Ordered Pair
1	2	(1, 2)
3	6	(3, 6)
5	10	(5, 10)
7	14	(7, 14)
9	18	(9, 18)
11	22	(11, 22)

Diagrammatic annotations: A green curved arrow labeled '+2' points from the x-coordinate 1 to 3. A green curved arrow labeled '+4' points from the y-coordinate 2 to 6. A green curved arrow labeled 'x2' points from the x-coordinate 7 to the y-coordinate 14.



Describe the movement from one point to the next (page 86).

Right 2 units, up 4 units,

Look at the rules within each coordinate. The rule for the x-coordinate is add 2. The rule for the y-coordinate is add 4. But also begin to look for the pattern between x and y. In this case the y-coordinate is always double the x-coordinate.

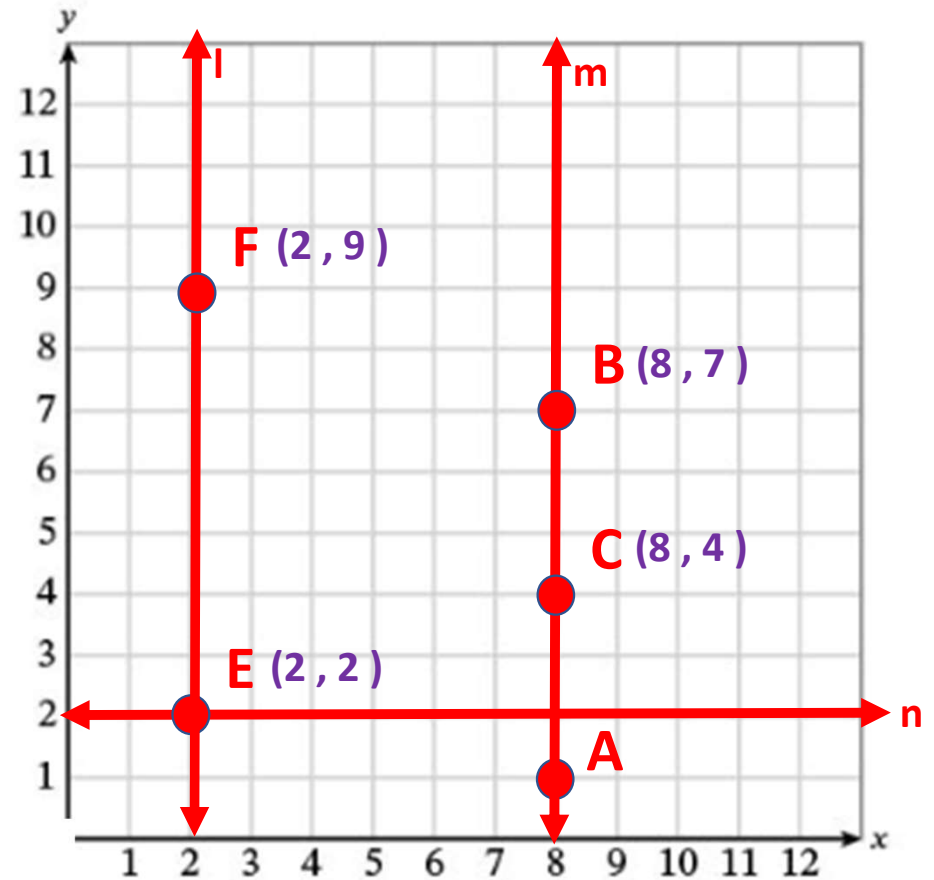
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Item 2: Be able to draw and label horizontal and vertical lines on a coordinate plane. Know the terms: parallel and perpendicular.

1. Use the coordinate plane to complete parts

- ✓ a. Draw and label point A at $(8, 1)$.
- ✓ b. Draw a line that is perpendicular to the x -axis through point A . Label the line m .
- ✓ c. Plot a point on line m that is 6 units farther from the x -axis than point A . Label this point B and write its ordered pair next to it.
- ✓ d. Plot a point on line m that is halfway between points A and B . Label this point C and write its ordered pair next to it.
- ✓ e. Draw line n so that it is 2 units from the x -axis and $n \perp m$.
- ✓ f. Point E is on line n . It is 2 units from the y -axis. Plot point E and write its ordered pair next to it.
- ✓ g. Draw line ℓ so that it passes through point E and $\ell \parallel m$.
- ✓ h. Point F is on line ℓ and is farther from the x -axis than point E . Plot point F and write its ordered pair next to it.

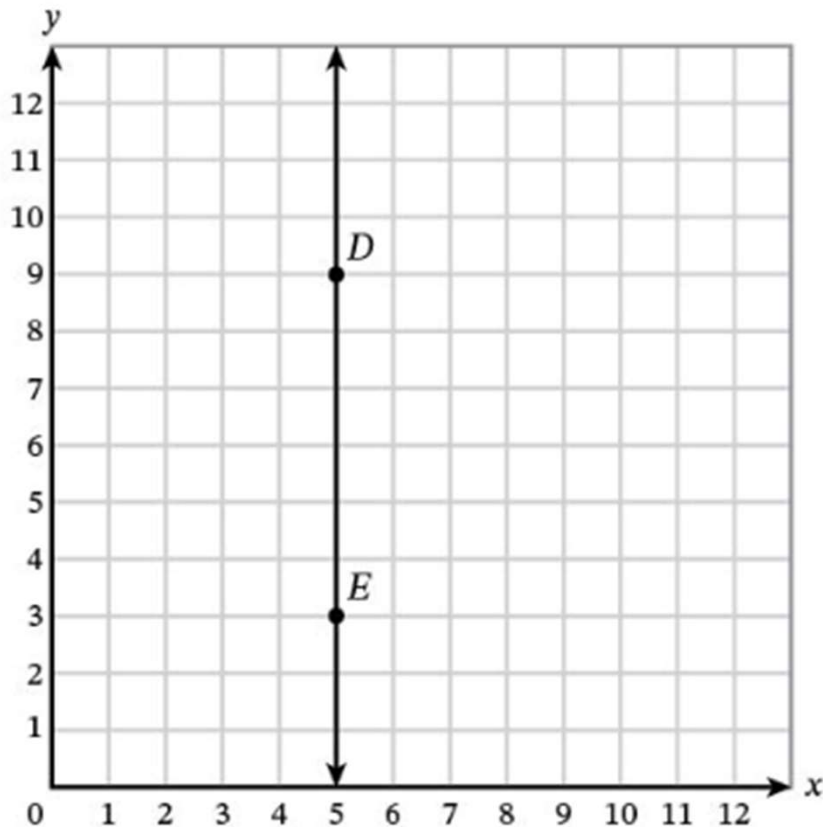
Draw Horizontal and Vertical Lines
Reference your LEARN book page 59.



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Item 3: Make True / False statements based on statements.

Reference your LEARN book page 61.



Statement	True	False
Each point on \overleftrightarrow{DE} has the same x-coordinate.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Each point on \overleftrightarrow{DE} has the same y-coordinate.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
All points on \overleftrightarrow{DE} are collinear.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Each point on \overleftrightarrow{DE} is the same distance from the x-axis.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Each point on \overleftrightarrow{DE} is the same distance from the y-axis.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
\overleftrightarrow{DE} is horizontal.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
\overleftrightarrow{DE} is vertical.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Items 4 & 5: Complete a data table with given rules and plot the points.

Reference your LEARN book page 86 & 87.

2. Multiply each x -coordinate by 4 to get its corresponding y -coordinate.

a. Complete the table.

Rule: Multiply x by 4 to get y

x -Coordinate	Calculation	y -Coordinate	Ordered Pair
0	$0 \times 4 = 0$	0	(0, 0)
$\frac{1}{4}$	$\frac{1}{4} \times 4$	1	($\frac{1}{4} \times 1$)
$\frac{1}{2}$	$\frac{1}{2} \times 4$	2	($\frac{1}{2} \times 2$)
$\frac{3}{4}$	$\frac{3}{4} \times 4$	3	($\frac{3}{4} \times 3$)
1	1×4	4	(1×4)

c. Describe the movement from one point to the next.

Right $\frac{1}{4}$ unit, up 1 unit.

d. What is the rule for the x -coordinate?

Add $\frac{1}{4}$

e. What is the rule for the y -coordinate?

Add 1

f. Fill in the blanks to describe the relationship between the x - and y -coordinates.

The **y** -coordinates are **4 times as much as**
the corresponding **x** -coordinates.

