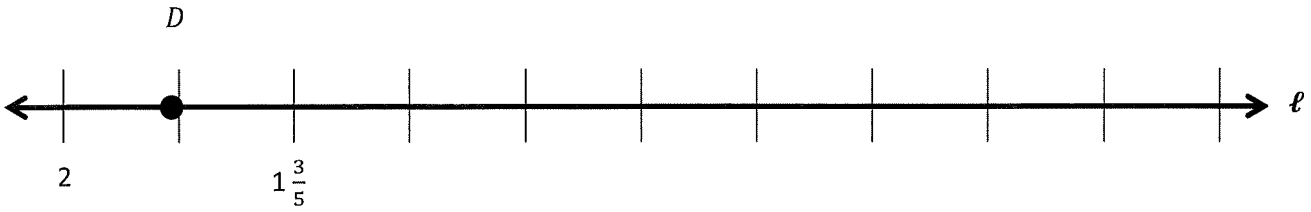
## Lesson 1 Exit Ticket 5•6

Name _____ Date _____

Use number line $\ell$ to answer the questions.




a. Plot point $C$ so that its distance from the origin is 1.

b. Plot point $E$ $\frac{4}{5}$ closer to the origin than $C$. What is its coordinate? _____

c. Plot a point at the midpoint of $C$ and $E$. Label it $H$.

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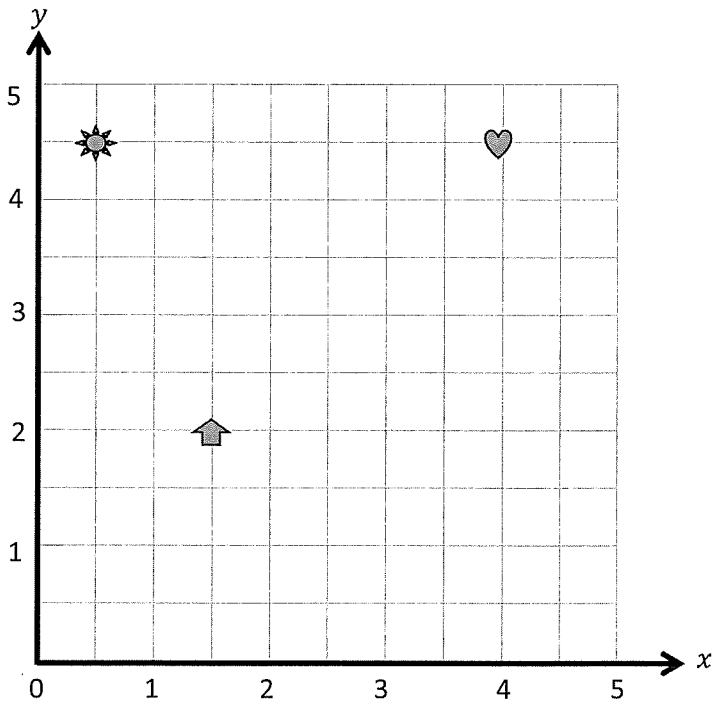
1. Name the coordinates of the shapes below.

| Shape | $x$-coordinate | $y$-coordinate |
|---|---|---|
| Sun | | |
| Arrow | | |
| Heart | | |




2. Plot a square at $(3, 3\frac{1}{2})$.

3. Plot a triangle at $(4\frac{1}{2}, 1)$.

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1. Use a straightedge to construct a line that goes through points $A$ and $B$. Label the line $\ell$.

2. Which axis is parallel to line $\ell$?

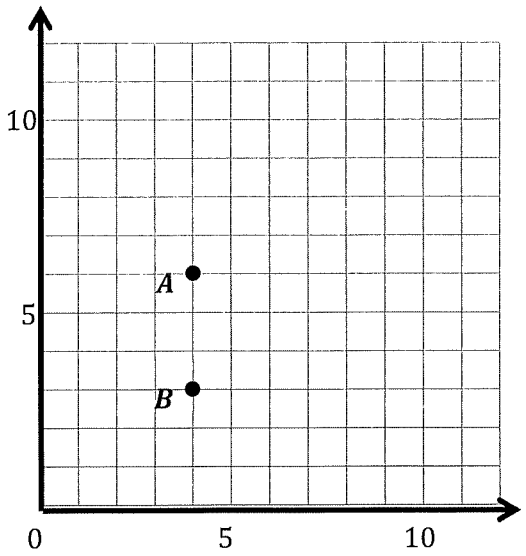
   Which axis is perpendicular to line $\ell$?

3. Plot two more points on line $\ell$. Name them $C$ and $D$.

4. Give the coordinates of each point below.

   $A$: _____ $B$: _____

   $C$: _____ $D$: _____




5. Give the coordinates of another point that falls on line $\ell$ with a $y$-coordinate greater than 20.

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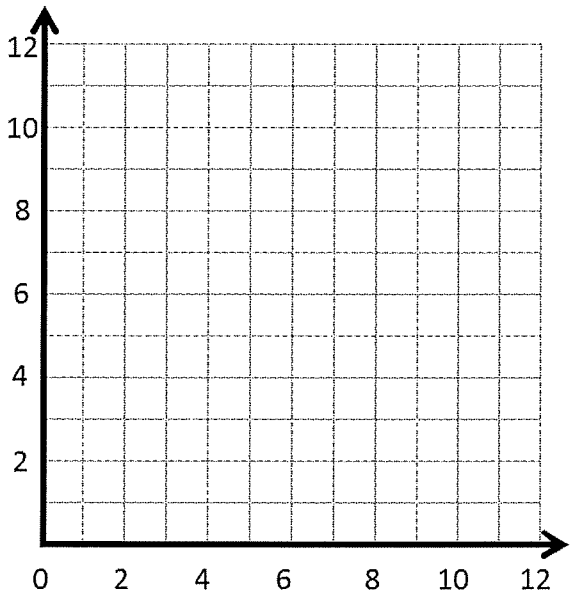
Complete the chart. Then, plot the points on the coordinate plane.

| $x$ | $y$ | $(x, y)$ |
|---|---|---|
| 0 | 4 | |
| 2 | 6 | |
| 3 | 7 | |
| 7 | 11 | |




1. Use a straightedge to draw a line connecting these points.

2. Write a rule to show the relationship between the $x$- and $y$-coordinates for points on the line.

3. Name two other points that are also on this line. _____ _____

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1. Complete the tables for the given rules.

Line $\ell$

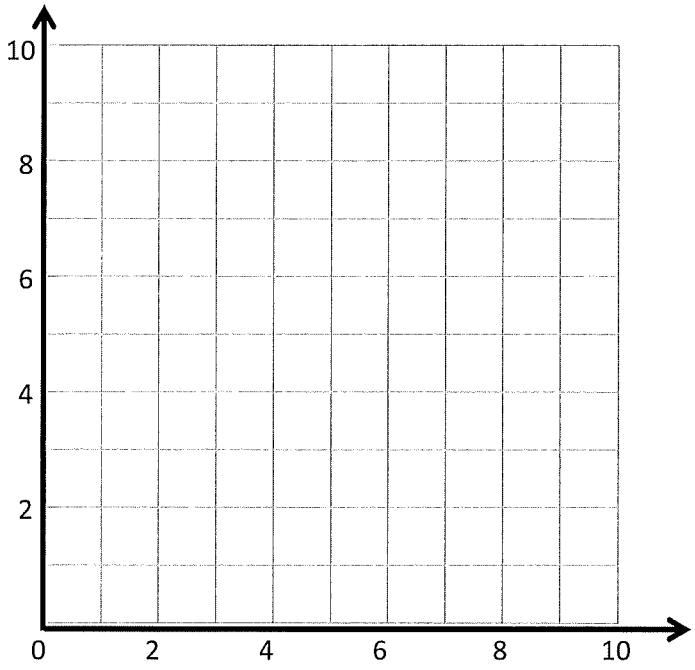
Rule: *Triple x*

| $x$ | $y$ | $(x, y)$ |
|---|---|---|
| 0 | | |
| 1 | | |
| 2 | | |
| 3 | | |

Line $m$

Rule: *Triple x, and then add 1*

| $x$ | $y$ | $(x, y)$ |
|---|---|---|
| 0 | | |
| 1 | | |
| 2 | | |
| 3 | | |




a. Draw each line on the coordinate plane above.

b. Compare and contrast these lines.

2. Circle the point(s) that the line for the rule *multiply x by* $\frac{1}{3}$*, and then add 1* would contain.

$(0, \frac{1}{2})$ $(1, 1\frac{1}{3})$ $(2, 1\frac{2}{3})$ $(3, 2\frac{1}{2})$

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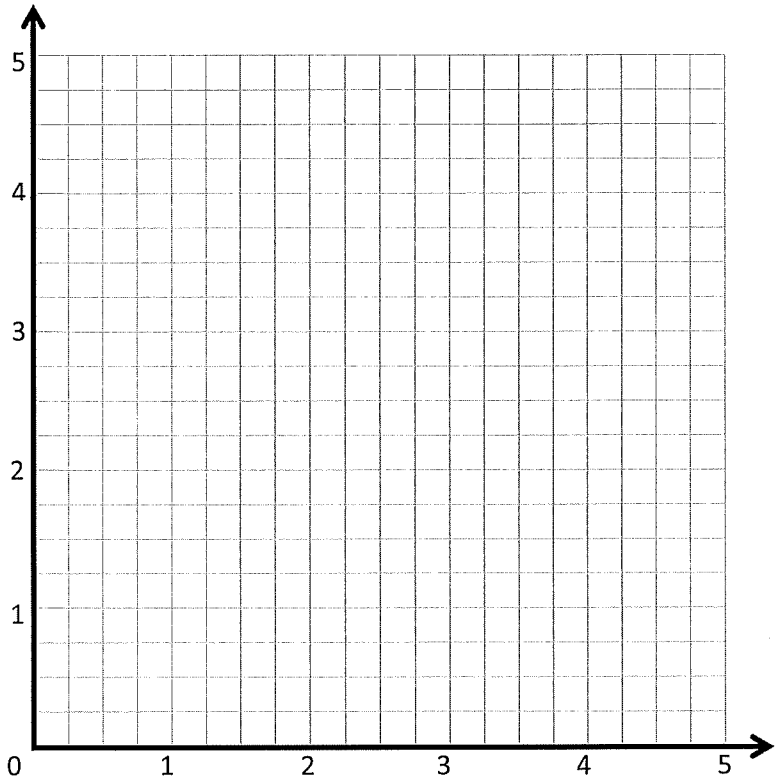
Write the rule for the line that contains the points $(0, 1\frac{1}{2})$ and $(1\frac{1}{2}, 3)$.

a. Identify 2 more points on this line. Draw the line on the grid.

| Point | $x$ | $y$ | $(x, y)$ |
|---|---|---|---|
| $B$ | | | |
| $C$ | | | |




b. Write a rule for a line that is parallel to $\overleftrightarrow{BC}$ and goes through point $(1, \frac{1}{2})$.