Name $\qquad$ Date $\qquad$

1. Write a rule for the line that contains the points $\left(0, \frac{1}{4}\right)$ and $\left(2 \frac{1}{2}, 2 \frac{3}{4}\right)$.
a. Identify 2 more points on this line. Draw the line on the grid below.

| Point | $\boldsymbol{x}$ | $\boldsymbol{y}$ | $(x, y)$ |
| :---: | :---: | :---: | :---: |
| $B$ |  |  |  |
| $C$ |  |  |  |

b. Write a rule for a line that is
parallel to $\overleftrightarrow{B C}$ and goes through point (1, $2 \frac{1}{4}$ ).

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

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

| Point | $\boldsymbol{x}$ | $\boldsymbol{y}$ | $(x, y)$ |
| :---: | :---: | :---: | :---: |
| $G$ |  |  |  |
| $H$ |  |  |  |

b. Write a rule for a line that is parallel to $\overleftrightarrow{G H}$.
3. Give the rule for a line that contains the point $\left(\frac{3}{4}, 1 \frac{1}{2}\right)$ using the operation or description below. Then, name 2 other points that would fall on each line.
a. Addition: $\qquad$

| Point | $x$ | $y$ | $(x, y)$ |
| :---: | :---: | :---: | :---: |
| $T$ |  |  |  |
| $U$ |  |  |  |

c. Multiplication: $\qquad$ d. A line parallel to the $y$-axis: $\qquad$

| Point | $x$ | $y$ | $(x, y)$ |
| :---: | :---: | :---: | :---: |
| $V$ |  |  |  |
| $W$ |  |  |  |

b. A line parallel to the $x$-axis: $\qquad$

| Point | $\boldsymbol{x}$ | $\boldsymbol{y}$ | $(x, y)$ |
| :---: | :---: | :---: | :---: |
| $G$ |  |  |  |
| $H$ |  |  |  |


| Point | $x$ | $y$ | $(x, y)$ |
| :---: | :---: | :---: | :---: |
| $A$ |  |  |  |
| $B$ |  |  |  |

e. Multiplication with addition: $\qquad$

| Point | $\boldsymbol{x}$ | $\boldsymbol{y}$ | $(x, y)$ |
| :---: | :---: | :---: | :---: |
| $R$ |  |  |  |
| $S$ |  |  |  |

4. On the grid, two lines intersect at (1.2, 1.2). If line $a$ passes through the origin and line $b$ contains the point $(1.2,0)$, write a rule for line $a$ and line $b$.
$\qquad$
