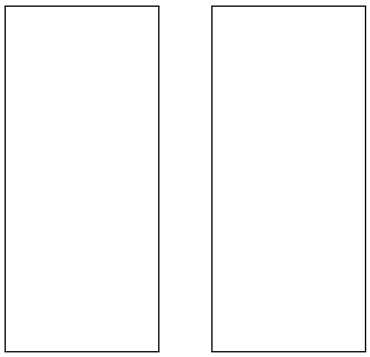
1. Troy planted roses in $\frac{5}{6}$ of his garden. Create a model to represent the fraction.

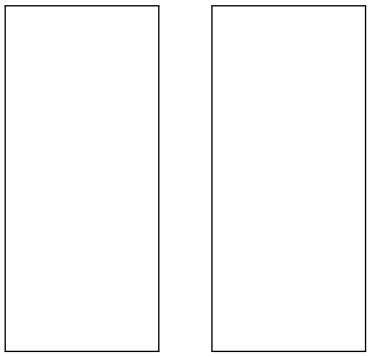
   Using one or both rectangles, show the correct number of equal parts for one whole. Then shade parts to represent $\frac{5}{6}$.



   Answer: [Interactive question not supported yet.]

2. A cake was cut into equal pieces. After dinner, $\frac{4}{8}$ of the cake was left. Create a model to represent a fraction equivalent to $\frac{4}{8}$.

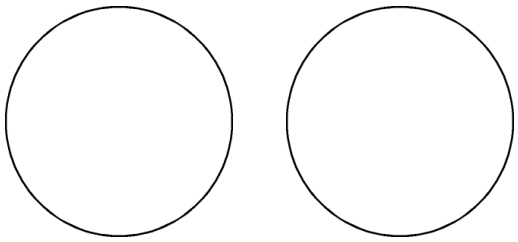
   Using one or both rectangles, show the correct number of equal parts for one whole. Then shade parts to represent the fraction.



   Answer: [Interactive question not supported yet.]

3. Create a model to show a fraction equivalent to 0.3.

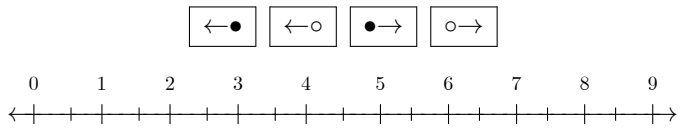
   Using one or both circles, show the correct number of equal parts for one whole. Then shade parts to represent 0.3.



   Answer: [Interactive question not supported yet.]

4. Use the number line to represent the solution to $6x < 42$.

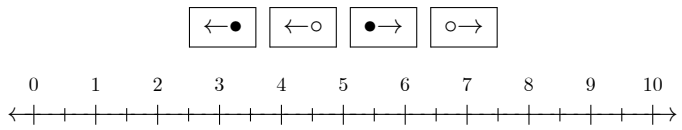
Select a ray. Draw the ray at the correct place on the number line.




Answer: Ray with open circle pointing left with endpoint of 7

5. Use the number line to represent the solution to $5x \geq 15$.

Select a ray. Draw the ray at the correct place on the number line.

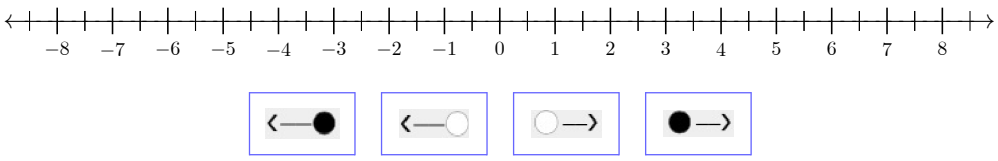



Answer: Ray with closed circle pointing right with endpoint of 3

6. Create a number line that best represents the solution to the inequality shown.

$$2 + \frac{3}{10}x \geq \frac{13}{20}$$

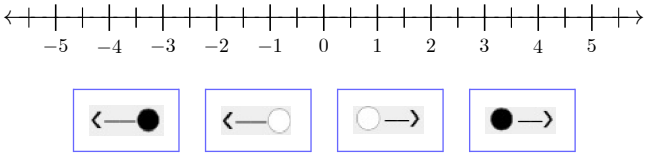
Select a ray. Draw the ray at the correct place on the number line.




Answer: $x \geq -4.5$

7. What is the solution set to the inequality $m - 7 > -2(m + 0.5)$ ?

Select a ray. Draw the ray at the correct place on the number line.

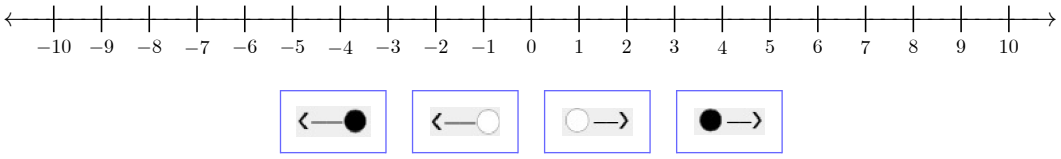



Answer: Ray that has an open circle and points right with an endpoint of 2

8. Create a number line that best represents the solution to the inequality shown.

$$50x - 130 - 100x > 170$$

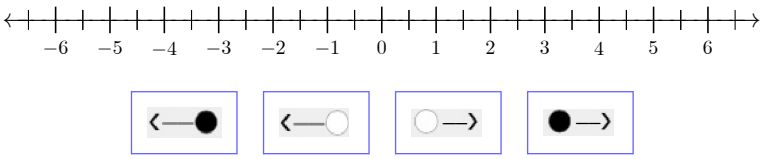
Select a ray. Draw the ray at the correct place on the number line.




Answer: $x < -6$

9. Use the number line to represent all the solutions to the inequality $-3(2j - 11) \geq 8j - 9$.

Select a ray. Draw the ray at the correct place on the number line.





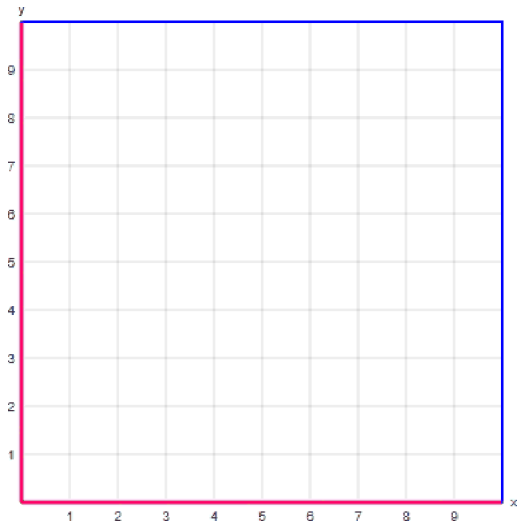

Answer: Ray that has a closed circle and points left with an endpoint of 3

10. A table of ordered pairs is shown.

| $x$ | 1 | 2 | 5 | 6 |
|---|---|---|---|---|
| $y$ | $1\frac{1}{2}$ | $2\frac{1}{2}$ | $5\frac{1}{2}$ | $6\frac{1}{2}$ |

Select four points on the coordinate grid that represent the ordered pairs in the table.

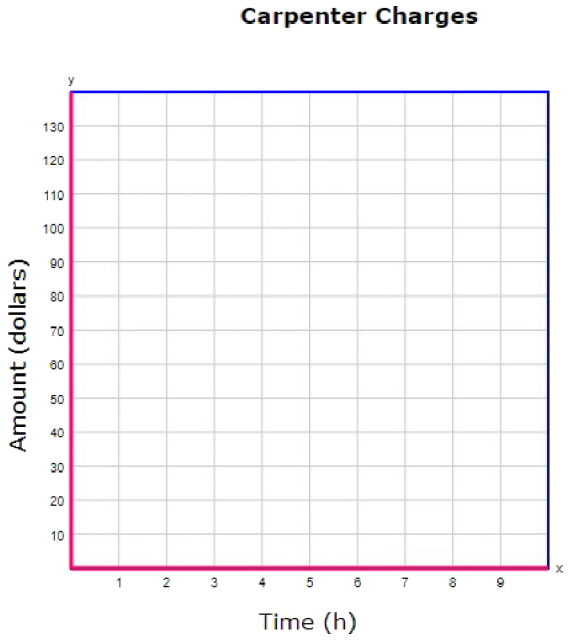
Plot each point on the coordinate grid.




Answer: $(1, 1.5)$, $(2, 2.5)$, $(5, 5.5)$, $(6, 6.5)$

11. A carpenter charges \$25 to come to a customer's home. Then she charges \$35 per hour for the time she spends working.

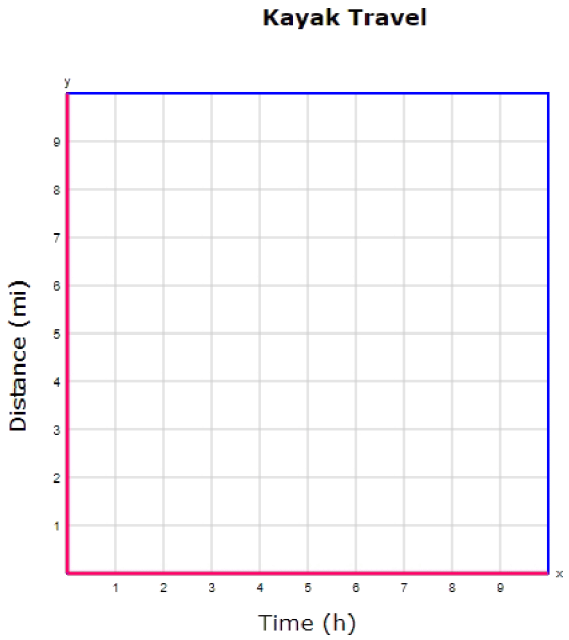
Graph a line that best represents the relationship between $x$, the number of hours the carpenter works, and $y$, the amount she charges in dollars.




Answer: $y = 35x + 25$

12. Hudson traveled 7.5 miles in his kayak in 3 hours.

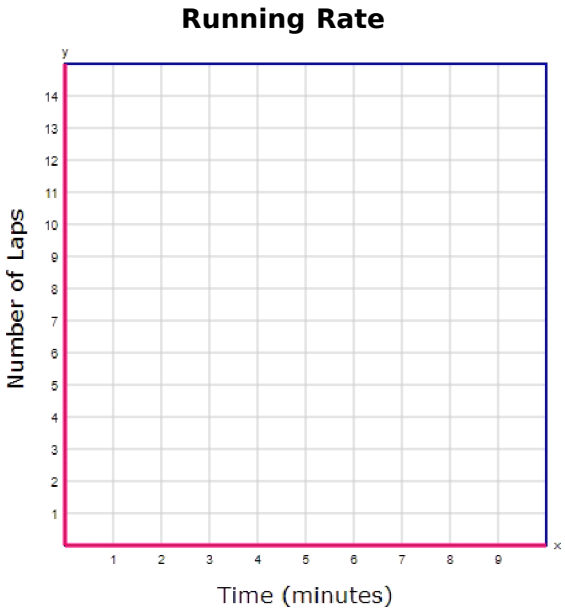
Graph the line that best represents the relationship between the time in hours, $x$, and the distance in miles, $y$, Hudson traveled if he traveled at a constant speed.




Answer: $y = 2.5x$

13. Ricardo can complete 4 laps around a track in 10 minutes. Create a graph that has a slope that represents the number of laps Ricardo can run per minute.

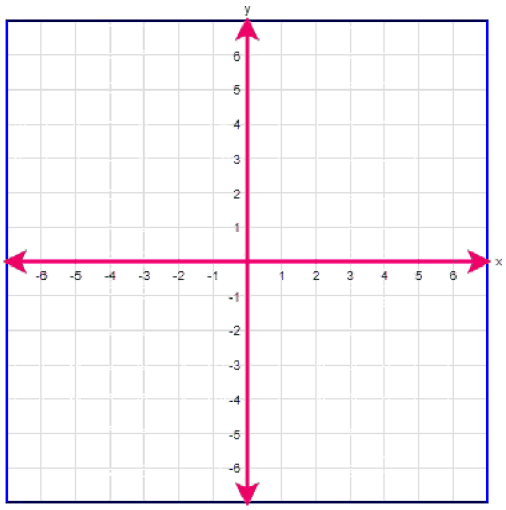
Select two points on the coordinate grid. A line will connect the points.




Answer: points on the line $y = 0.4x$

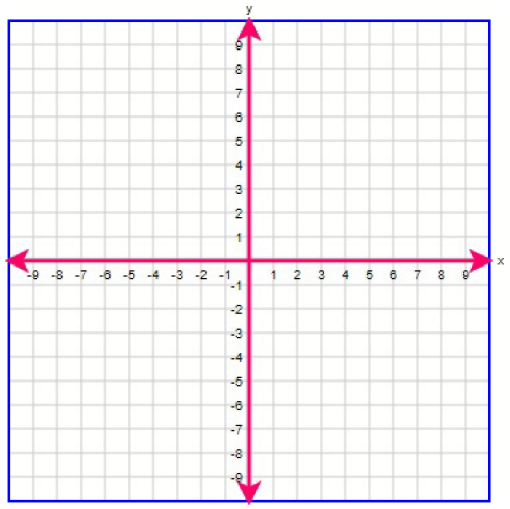
14. Graph a relationship in which the value of $y$ is 5 less than half the value of $x$.

Select two points on the coordinate grid. A line will connect the points.



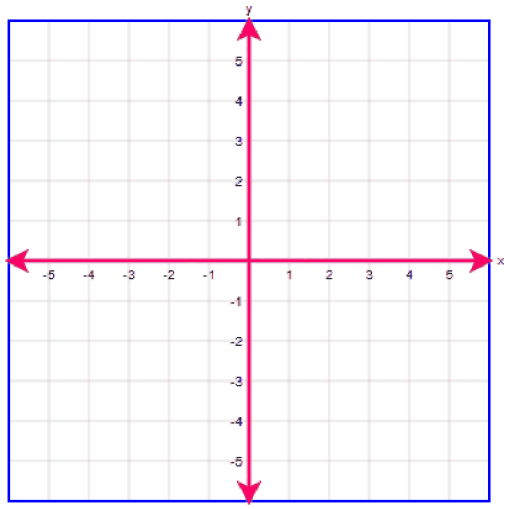

Answer: points on $y = \frac{1}{2}x - 5$

15. What is the graph of the function $f(x) - 6(\frac{2}{3})^x$ ?



Answer: Graph that includes $(0, 6)$, $(-1, 9)$, $(1, 4)$ and an asymptote of $y = 0$

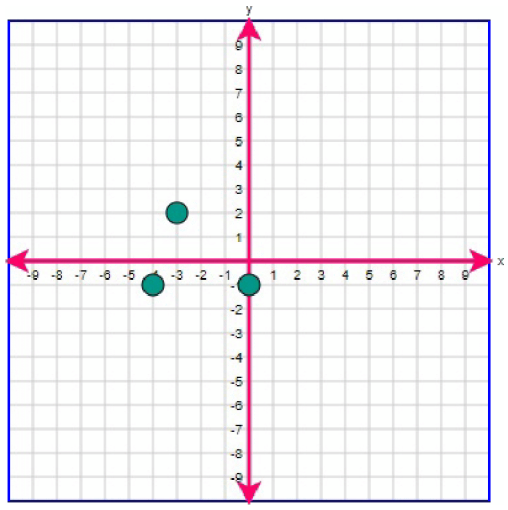
16. The graph of $f(x) = x^2$ was transformed to create the graph of $g(x) = -f(x - 3) + 4$. What is the graph of $g$?



Answer: Graph that includes $(1, 0)$, $(5, 0)$ and $(3, 4)$

17. The three points shown lie on the graph of a quadratic function. Graph the line of symmetry for the quadratic function.

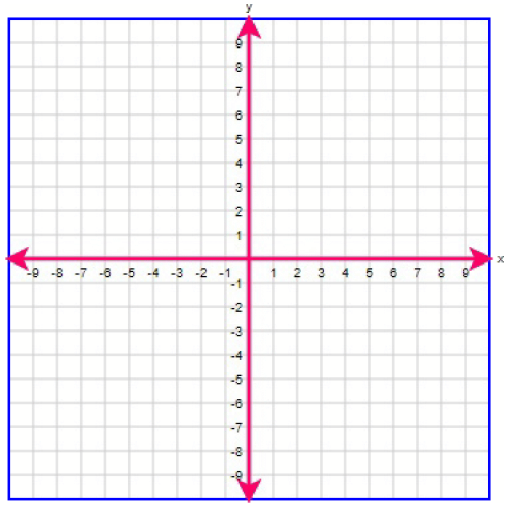
Select two points on the coordinate plane. A line will connect the points.



Answer: Graph of the line $x = -2$

18. Graph the line represented by the equation $3x - 5y = 15$.

Select two points on the coordinate grid. A line will connect the points.



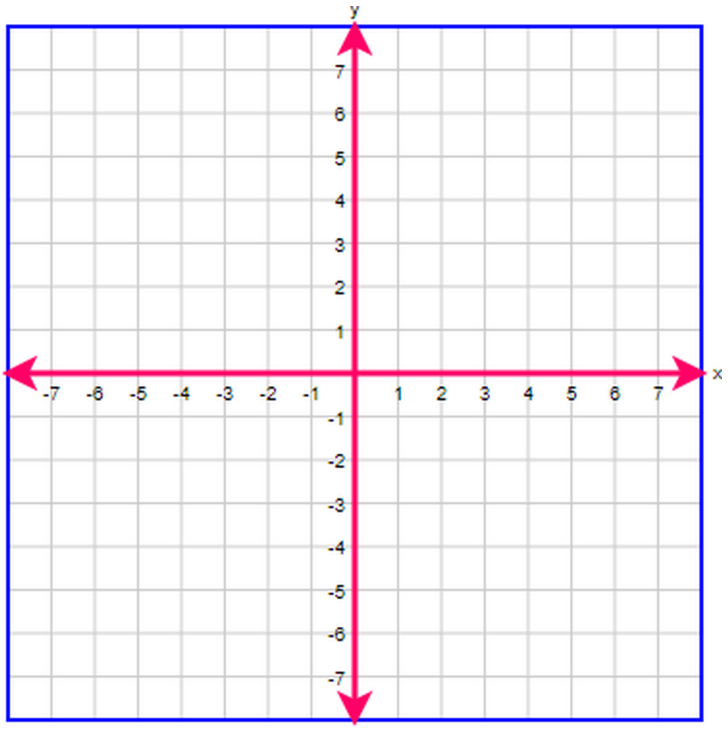
Answer: Any two points on the line $y = \frac{3}{5}x - 3$

19. What is the solution set for the system of linear inequalities shown?

$y > -\frac{3}{4}x + 4$

$y < \frac{3}{2}x - 5$

Graph the solution set of the system of linear inequalities in the coordinate plane.



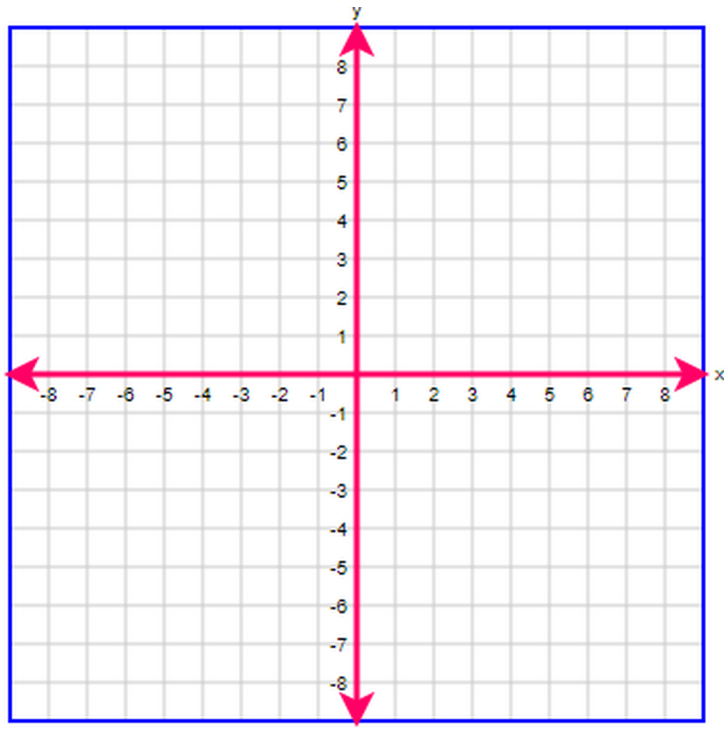

Answer: Graph 1: dashed line with $y$-intercept of $(0, 4)$ and includes points $(4, 1)$ and $(-4, 7)$

Graph 2: dashed line with $y$-intercept of $(0, -5)$ and includes points $(2, -2)$ and $(4, 1)$

Area to the right, containing point $(5, 1)$ is shaded

20. What is the solution set for $5x + 6y \leq 30$?

Graph the solution set of the linear inequality in the coordinate plane.




Answer: Graph of the line that includes $(0, 5)$ and $(6, 0)$. Area to the lower left that contains the point $(0, 0)$ is shaded