1. Graph the line $y = 4$
This is a horizontal (vertical or horizontal) line with a slope of (0 or undefined).

2. Graph the line $x = 4$
This is a vertical (vertical or horizontal) line with a slope of (0 or undefined).

3. Identify the x and y intercepts, then graph:
$4x - y = -4$

4. Identify the x and y-intercepts, then graph:
$3y - 4x + 4 = x - 7y - 16$
$10y - 5x = -20$
$-5x + 10y = -20$

x-intercept: $-1$  y-intercept: $4$

x-intercept: $4$  y-intercept: $-2$
5. Identify the slope and the point the line passes through, then graph:

\[ Y + 4 = -(x - 6) \]

Slope \( -1 \)

Point \( (4, -4) \)

6. Identify the slope and the point the line passes through, then graph:

\[ Y - 2 = \frac{3}{4}(x + 1) \]

Slope \( \frac{3}{4} \)

Point \( (-1, 2) \)

7. Write the equation in standard form using integers:

\[
\begin{align*}
4x - 6 &= -3y \\
16x - 120 &= -15y \\
16x + 15y &= 120
\end{align*}
\]

8. Write an equation in standard form using integers:

\[
\begin{align*}
\frac{1}{3} - x &= \frac{2}{5}y \\
15 - 15x &= 6y \\
15x + 6y &= 5
\end{align*}
\]

9. Write the equation for the line with a slope of -2 and passing through (-4, 12)

A. in point slope form

\[ y - 12 = -2(x + 4) \]

B. in slope intercept form

\[ y = -2x + 4 \]

10. Write the equation for the line with a slope of \( \frac{3}{7} \) and passing through (14, -21)

A. in point slope form

\[ y + 21 = \frac{3}{7}(x - 14) \]

B. in slope intercept form

\[ y = \frac{3}{7}x - 21 \]
11. Write the equation for the line that passes through (-6, 4) and (-4, 2)

A. in point slope form
\[
\frac{y - a}{x - b} = -\frac{2}{b} = -1
\]
\[
y - 4 = -(x + 2)
\]
B. in slope intercept form
\[
y = -x - a
\]

12. Write the equation for the line that passes through (5, 3) and (10, 2)

A. in point slope form
\[
\frac{y - a}{x - b} = -\frac{1}{5} = -1
\]
\[
y = -\frac{1}{5} (x - 10)
\]
B. in slope intercept form
\[
y = -\frac{1}{5} x + b
\]

13. Brittany bought some iTunes gift cards. They were $15 or $25. She spent $300.

A. Define your variables:
$15$ gift card $x$ $25$ gift card $y$

B. Equation
\[
15x + 25y = 300
\]

C. What are the $x$- and $y$-intercepts of your equation? What do they mean in terms of the situation?
\[
x = 20 \
y = 12
\]

Buy no $25$ cards, can buy $20$ $15$ cards.

Buy no $15$ cards, can buy $12$ $25$ cards.

14. Kurt bought some Starbuck's gift cards. They were $5$ or $10$. He spent $600.

A. Define your variables:
$5$ gift card $x$ $10$ gift card $y$

B. Equation
\[
5x + 10y = 600
\]

C. What are the $x$- and $y$-intercepts of your equation? What do they mean in terms of the situation?
\[
x = 120 \
y = 60
\]

Buy no $10$ cards, buy $120$ $5$ cards.

Buy $0$ $5$ cards, buy $60$ $10$ cards.