Do Now

1) Find the slope of the line that passes through the points (0, 6) and (-2, -1)

$m = \frac{y_2 - y_1}{x_2 - x_1}$ x_2 y_2 x_1 y_1 $m = \frac{6-(-1)}{0-(-2)} = \frac{7}{2}$

2) State the y-intercept and the slope for the linear function 4x - 3y = 6

$y = mx + b$ $-4x$ $-4x$ $\frac{-3y}{-3} = \frac{-4x}{-3} + \frac{6}{-3}$ $m = \frac{4}{3}$

$y = \frac{4}{3}x - 2$ $b = -2$ $(0, -2)$

3) State the domain and range for the following relation.

x	-4	3	7	0
f(x)	5	-2	5	-4

Domain $\{-4, 0, 3, 7\}$

Range $\{-4, -2, 5\}$

4) State whether the ordered pair is a solution to the linear function ~~f(x)~~ = 3x - 4; (2, -2)

$y = 3x - 4$ (x, y)

$-2 = 3(2) - 4$

$-2 = 6 - 4$ Not a

$-2 \neq 2$ Solution

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1) Slope $\frac{3}{5}$

y-Intercept -2

Equation $y = \frac{3}{5}x - 2$

2) Slope $-\frac{3}{2}$

y-Intercept 3

Equation $y = \frac{-1}{2}x + 3$

1) Slope $\frac{1}{4}$

y-Intercept -3

Equation $y = \frac{1}{4}x - 3$

2) Slope $-\frac{3}{4}$

y-Intercept 1

Equation $y = \frac{-3}{4}x + 1$

3) Slope $\frac{-2}{1}$

y-Intercept 4

Equation $y = -2x + 4$

4) Slope $\frac{2}{5}$

y-Intercept 0

Equation $y = \frac{2}{5}x$

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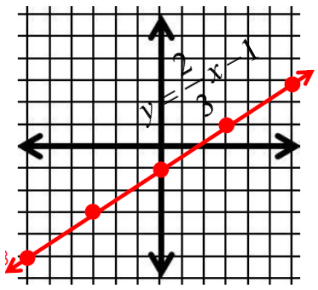
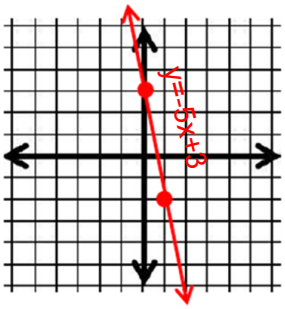
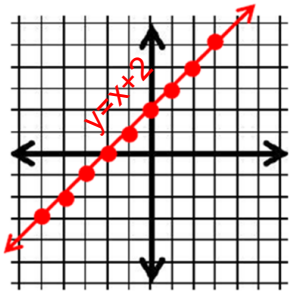
Example: Graph $y = \frac{2}{3}x - 1$.



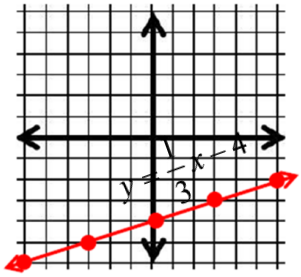
❷ Graph $y = -5x + 3$.



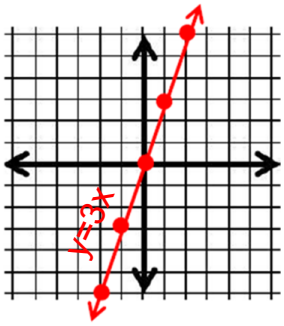
❸ Graph $y = \frac{1}{1}x + 2$



❶ Graph $y = \frac{1}{3}x - 4$.



❹ Graph $y = 3x$



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domain

{-1,0,1,2,3,4}

domain:

The set of all possible ___x___ values of a function.

Other names for domain:

x-values

input

ordered pairs

1. {(0, 3), (1, 5), (2, 7), (3, 9)}

{0,1,2,3}

2. {(-1, -8), (0, -5), (1, -2), (2, 1)}

{-1,0,1,2}

table

3.

x	-1	0	1	2
y	6	4	2	0

{-1,0,1,2}

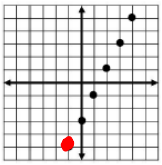
4.

x	0	4	8	12
y	-3	-2	-1	0

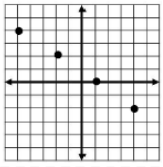
{0,4,8,12}

graph

5.



6.



{-5,-2,1,4}

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Range

Range:

The set of all possible ___y___ values of a function.

Other names for range:

output

y-value

Ordered Pairs

1. {(-2, 4), (0, 5), (2, 6), (4, 7)}

{4, 5, 6, 7}

2. {(-2, -5), (-1, -2), (0, 1), (1, 4)}

{-5, -2, 1, 4}

Table

3.

x	-2	-1	0	1
y	5	2	-1	-4

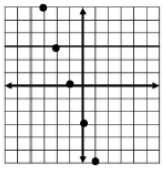
5, 2, -1, -4

4.

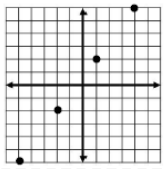
x	0	3	6	9
y	2	3	4	5

Graph

5.



6.



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