6.2

Representation of Functions (Day 2)

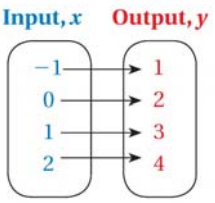
Ways to Represent a Function

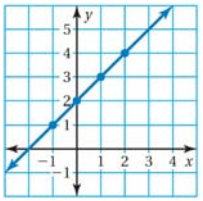
An output is 2 more than the input.

$y = x + 2$

Input, x	Output, y
-1	1
0	2
1	3
2	4

Ways to Represent a Function

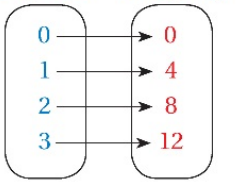




Writing an equation

Write an equation that describes the function.

1)



2)

Input, x	Output, y
1	0
3	-2
5	-4
7	-6

Writing an equation (function rule)

Write a function rule for the statement.

3) The output is eleven more than the input.

4) The output is the cube of the input.

5) The output is one more than twice the input.

Finding the output...

Find the value of *y* for the given value of *x*.

6) $y = 7x \;;\; x = -5$

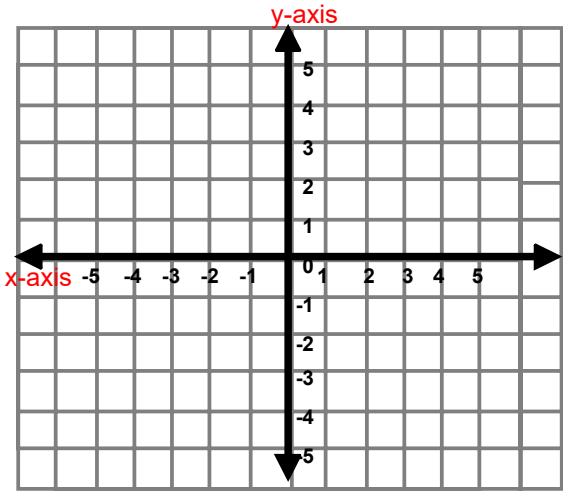
7) $y = 3x + 2 \;;\; x = 0.5$

8) $y = \frac{x}{2} + 9 \;;\; x = -12$

Graphing

Graph the function

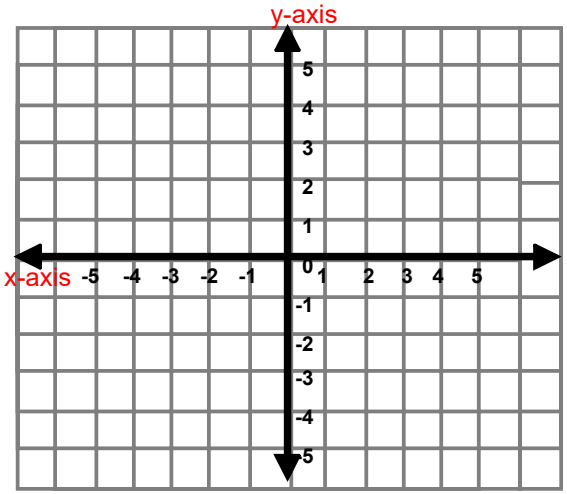
9) $y = 2x$



Graphing

Graph the function

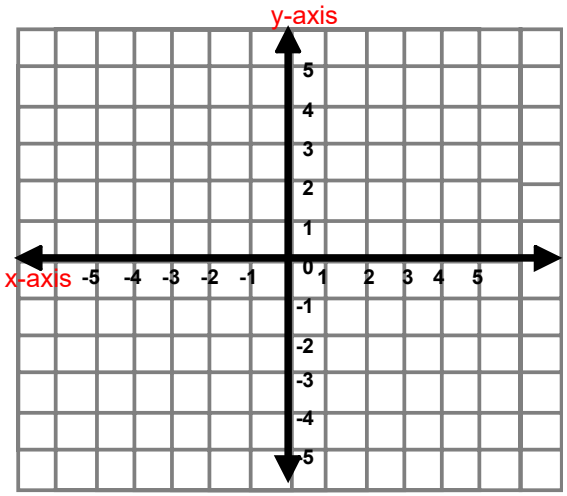
10) $y = \frac{x}{4}$



Graphing

Graph the function

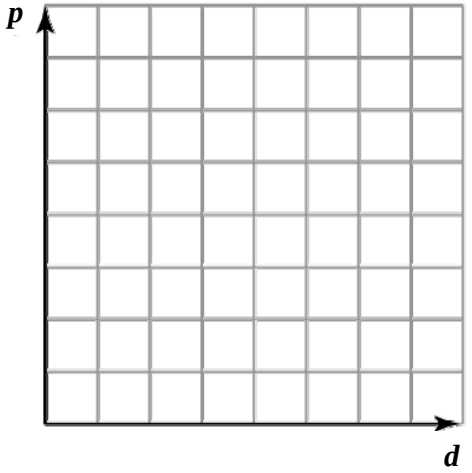
11) $y = \frac{x}{2} + 1$



Application...

12) A dolphin eats 30 pounds of fish per day.

a) Write and graph a function that relates the number of pounds *p* of fish that a dolphin eats in *d* days.



Application...

12) A dolphin eats 30 pounds of fish per day.

b) How many pounds of fish does a dolphin eat in 30 days?

Finding the input...

Find the value of *x* for the given value of *y*.

13) $y = 5x - 7$; $y = -22$

Finding the input...

Find the value of *x* for the given value of *y*.

14) $y = \frac{x}{4} - 7$; $y = 2$