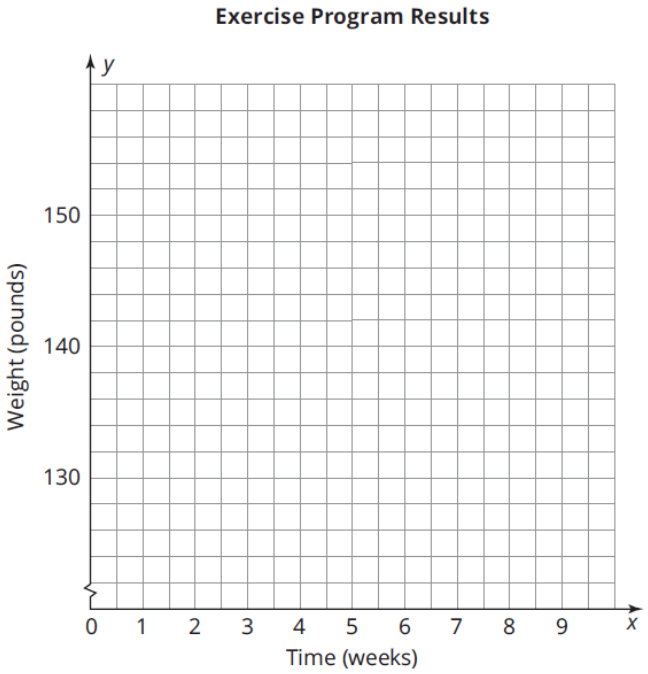
Name:_____Date:_____Period:____ F.IF

Piecewise Functions

A. Complete each table. Then, sketch a graph that represents the problem situation.

Shanise weighs 146 pounds when she starts a new exercise program. She loses 2 pounds each of the first 4 weeks. Then, for the next 2 weeks she loses 1 pound per week. After those 2 weeks she adds swimming to her program and again loses 2 pounds per week for the next 2 weeks.

Time (weeks)	Weight (pounds)
0	
1	
2	
3	
4	
5	
6	
7	
8	



Inverses of Functions

A. Complete each table. Write an equation to represent the relationship. Write an equation for the inverse of the problem situation.

One foot is equivalent to 12 inches.

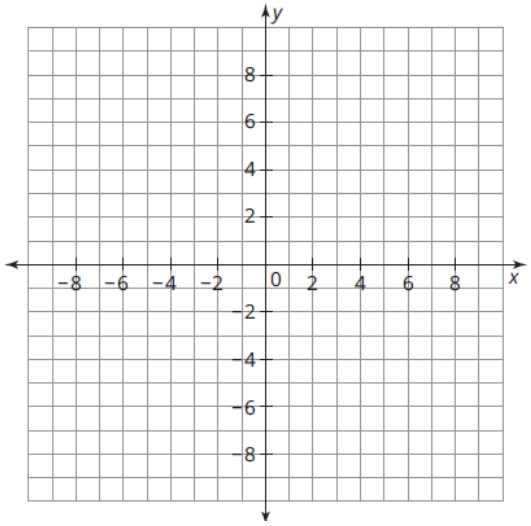
Feet	Inches
1	
2	
3	
4	
5	

Four quarters is equivalent to 1 dollar.

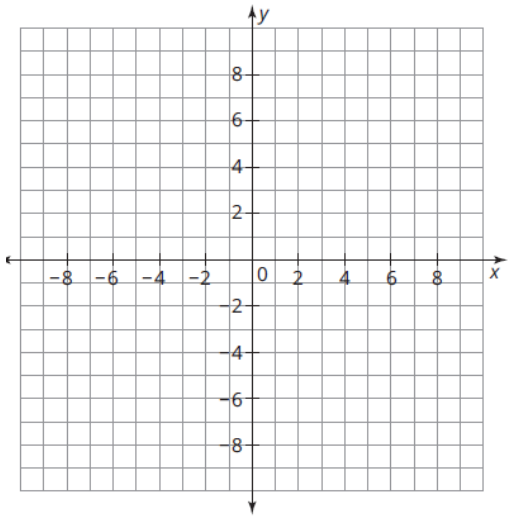
Quarters	Dollars
4	
16	
32	
64	
128	

B. Determine the inverse of each function. Graph the original function and its inverse.

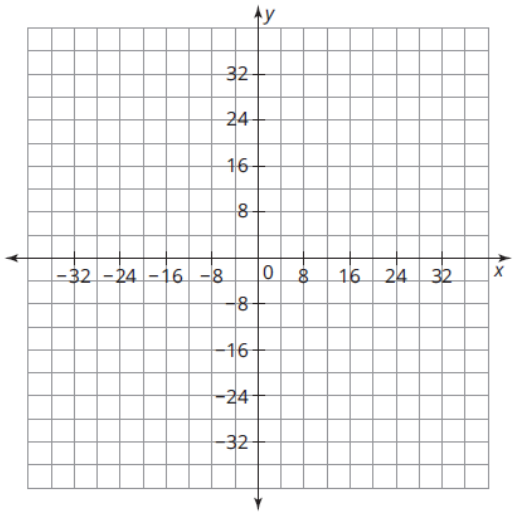
$f(x) = 2x + 1$



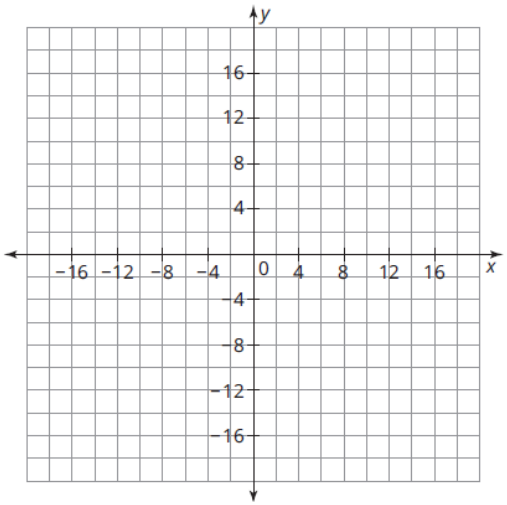
$f(x) = -6x - 2$



$f(x) = \frac{2}{3}x - 8$



$f(x) = -0.5x + 9$



C. Determine the corresponding point on the graph of the inverse of each function.

Given that (−3, 1) is a point on the graph of $f(x)$, what is the corresponding point on the graph of its inverse?

Given that (−6, 0) is a point on the graph of $f(x)$, what is the corresponding point on the graph of its inverse?