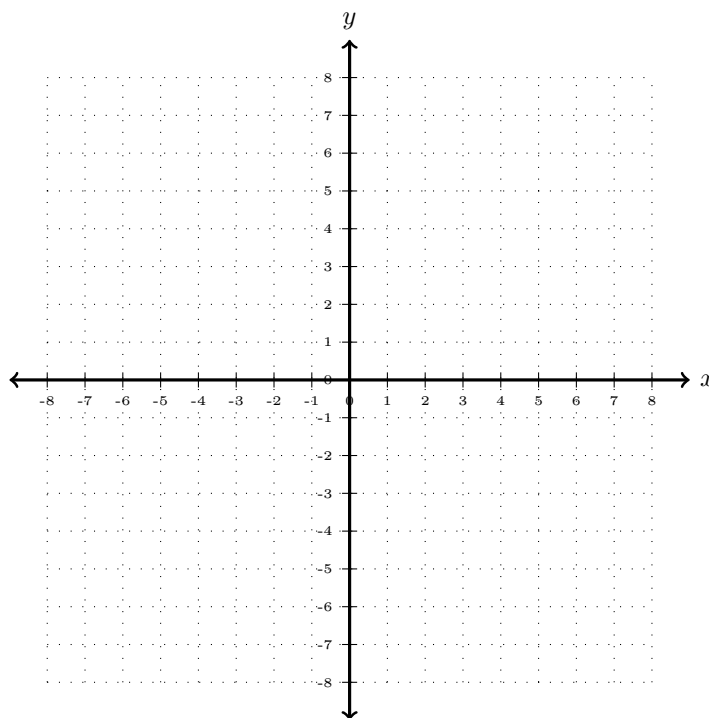# Activity 1.3a: Linear functions and mathematical models

1. Fill in the table of values and graph the function
   $f(x) = 3x - 2$

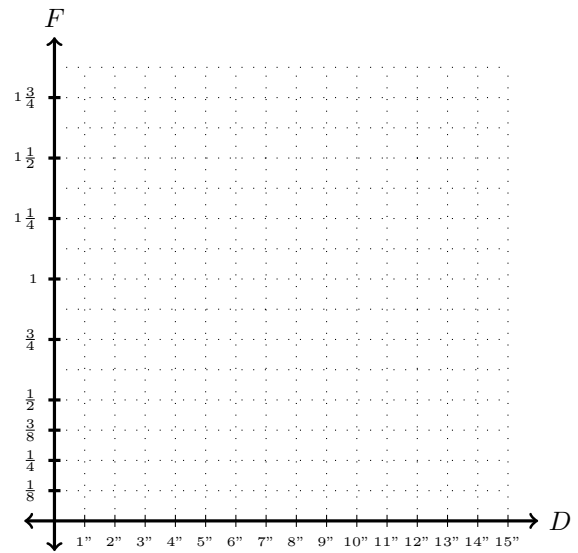| x	y
1	
2	
0	
-2	

2. Is the point $(2, 1)$ on the graph of this function?

3. What is the cost function if it costs \$10 to produce 50 widgets and \$15 to produce 100 widgets?

Activity 1.3b: Pizza production cost

You notice that it takes about 3/8 cups of flour to make a 6" pizza crust, 2/3 cups of flour to make a 9" pizza crust, and $1\frac{1}{2}$ cups of flour to make a 12" pizza crust.

1. Graph the given data points.

2. How much more flour is required to make 3 more inches of pizza if you start with a 6"?

3. How much more flour is required to make 3 more inches of pizza if you start with a 9"?

4. Is the amount of flour required linear in the pizza size?

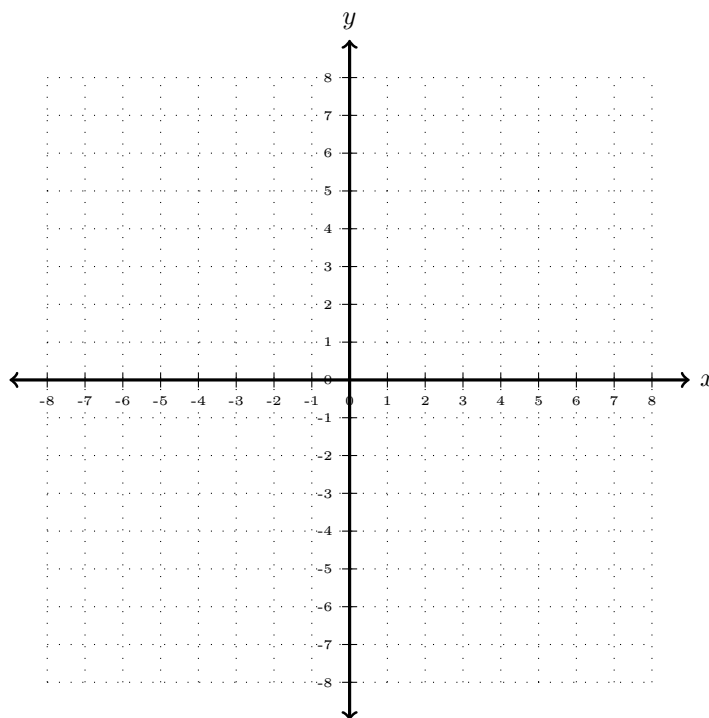5. Can you make a guess at the flour function, F(x)?

Name: _____

Quiz on 1.3: Linear functions and mathematical models

1. Fill in the table of values and graph the function
   $f(x) = 2x + 1$

x	y
1	
2	
0	
-2	

2. What is the cost function if it costs \$10 to produce 10 widgets and \$20 to produce 50 widgets?