

# Patterns and Graphing

Ron makes \$5 every hour. A rule like this can be used to create a data table. The data can be plotted on a coordinate grid.

How to graph a rule:

**Step 1:**

Name three  $x$ -coordinates. Use the rule, substituting each  $x$ -coordinate to calculate each  $y$ -coordinate. Put the ordered pairs into the table.

**Step 2:**

Use grid paper. Choose an interval for each axis. Label and number the axes.

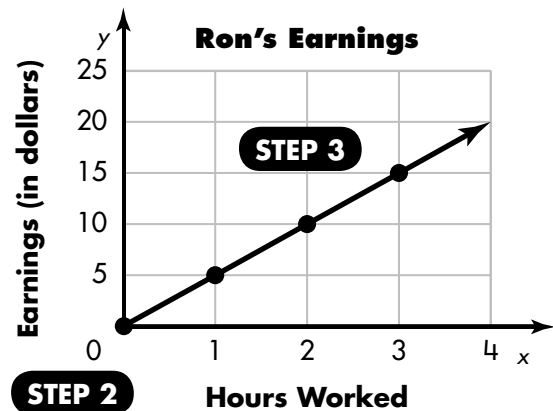
Choose the starting point and ending point for each axis.

**Step 3:**

Graph the data by using the coordinates for each set of data as a point. Connect all the points in a straight line. Title your graph.

**STEP 1**

$y = 5x$	
$x$ (Hours)	$y$ (Earnings)
0	0
1	5
2	10
3	15

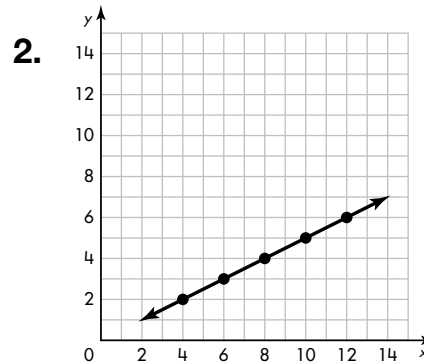
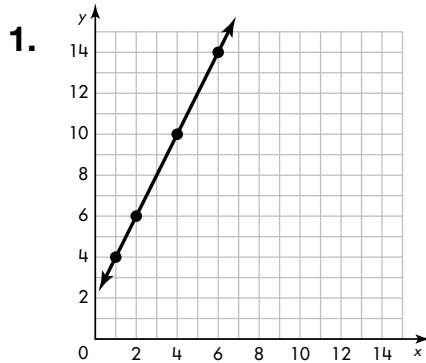


- Graph the points from the table below to show the cost of buying harmonicas. Let  $x$  equal the number of harmonicas, and let  $y$  equal the cost of each harmonica. Harmonicas are available online for \$3 each, plus a single shipping charge of \$2.

$y = 3x + 2$	
$x$	$y$
1	5
2	8
3	11

# Patterns and Graphing

In 1 and 2 create a data table from the points plotted on the graph.



3. Janice is 7 years older than Tam. Complete the table, and then graph this situation.

Tam $x$ (years)	Janice $y$ (years)
2	9
4	
6	
8	

4. There are 4 cupcakes in every package. Complete the table, and then graph this situation.

$x$ (number of packages)	$y$ (number of cupcakes)
1	4
2	
3	
4	
5	

5. Tickets to the River Dell Middle School concert cost \$6 apiece. Complete the table, and then graph this situation.

$x$ (tickets sold)	$y$ (money received)
1	\$6
2	
3	
4	
5	

6. A graph includes the ordered pair (2, 4). Write two different rules that would be possible for this graph. Explain how you found your answer.

---



---