DATE_____ PAGE # _____

Graph Proportional Relationships _ L1-5

A way to determine whether two quantities are proportional is to graph them on a coordinate plane. If the graph is a **straight line through the origin**, then the two quantities are proportional.

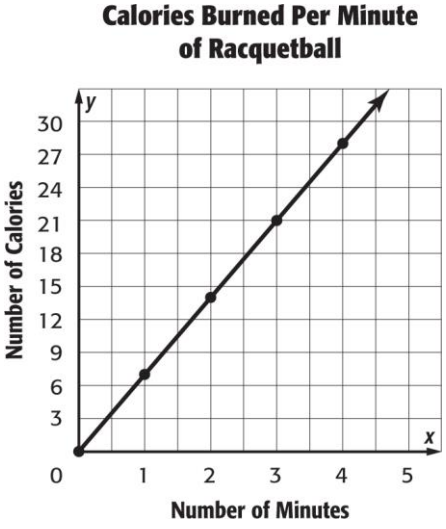
Example 1

A racquetball player burns 7 Calories a minute. Determine whether the number of Calories burned is proportional to the number of minutes played by graphing on the coordinate plane.

Step 1 Make a table to find the number of Calories burned for 0, 1, 2, 3, and 4 minutes of playing racquetball.

Time (min)	0	1	2	3	4
Calories Burned					

Step 2 Graph the ordered pairs on the coordinate plane. Then connect the ordered pairs.



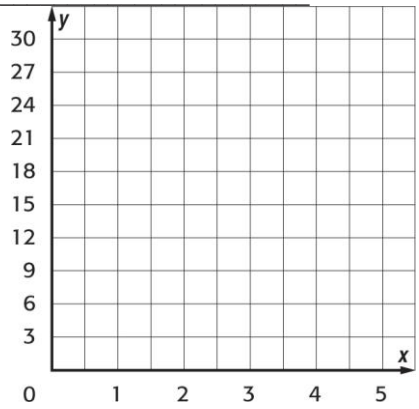
The line passes through the _____ and is a _____. So, the number of calories burned is _____ to the number of minutes of racquetball played.

Example 2

Determine whether the relationship between the two quantities shown in each table are proportional by graphing on the coordinate plane.

Volume of a Cube	
Side Length (ft)	**Volume (ft^3)**
1	
2	
3	

DATE_____ PAGE # _____



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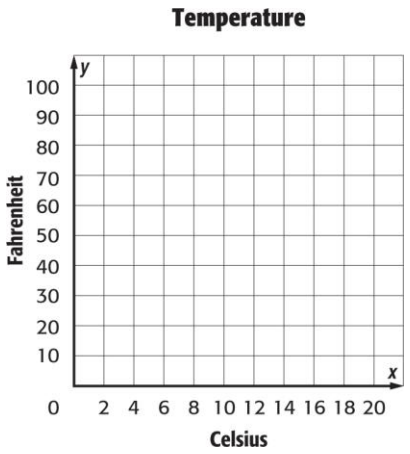
For Exercises 1 and 2, determine whether the relationship between the two quantities shown in each table are proportional by graphing on the coordinate plane.

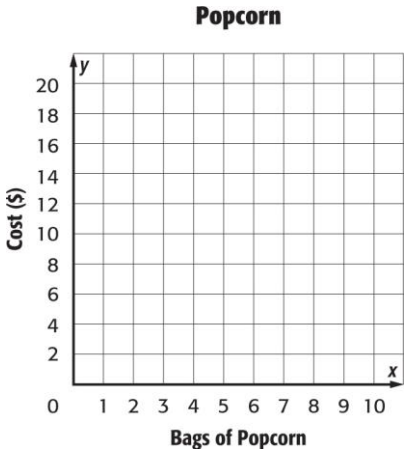
1.

Temperature (Degrees)	
Celsius	**Fahrenheit**
0	32
5	41
10	50
15	59
20	68

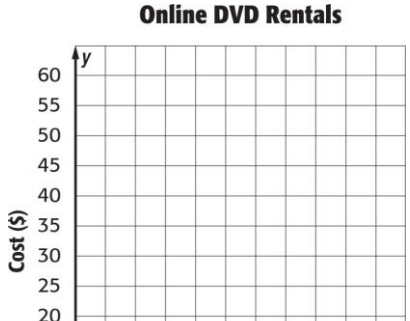


2.

Popcorn	
Bags of Popcorn	**Cost ($)**
0	0
1	4
2	
3	
4	



3. An online DVD rental company charges $15 a month for unlimited rentals. Determine whether the total paid after each month is proportional to number of months by graphing on the coordinate plane. (Make a table first)



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