

Lesson 5 Homework Practice

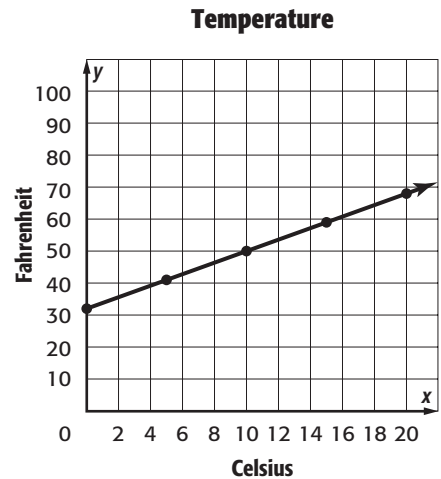
Graph Proportional Relationships

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. Explain your reasoning.

1.

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

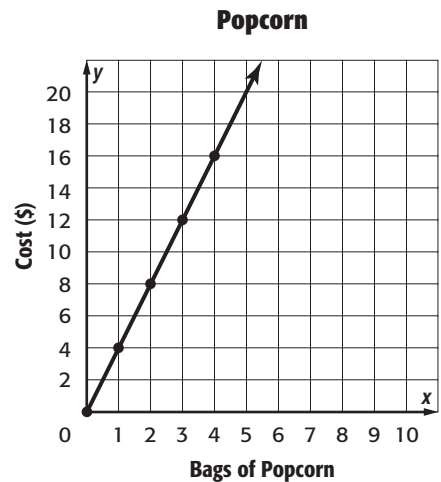
Degrees Fahrenheit is not proportional to degrees Celsius because the graph does not pass through the origin.



2.

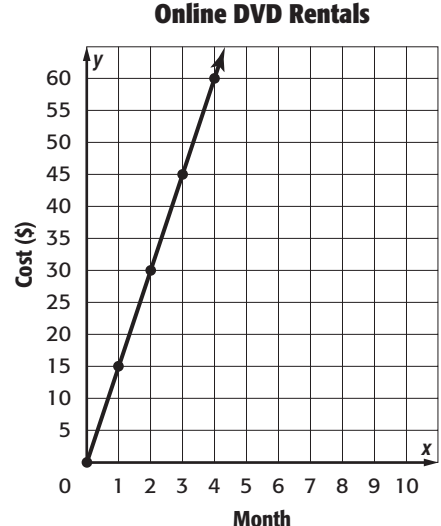
Popcorn	
Bags of Popcorn	Cost (\$)
0	0
1	4
2	8
3	12
4	16

The cost is proportional to the number of bags of popcorn because the graph is a straight line through the origin.



3. **MOVIES** An online DVD rental company charges \$15 a month for unlimited rentals. Determine whether the monthly cost is proportional to number of months by graphing on the coordinate plane. Explain your reasoning.

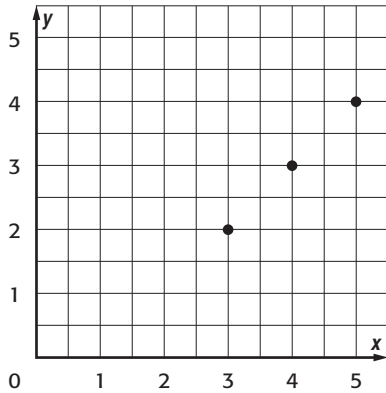
The monthly cost is proportional to the number of months because the graph is a straight line through the origin.



Lesson 5 Problem-Solving Practice

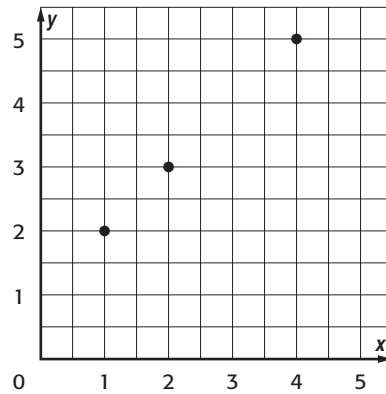
Graph Proportional Relationships

- 1. BAKING** Rachel baked 3 cakes in 2 hours, 4 cakes in 3 hours, and 5 cakes in 4 hours. Determine whether the number of cakes baked is proportional to the number of hours.



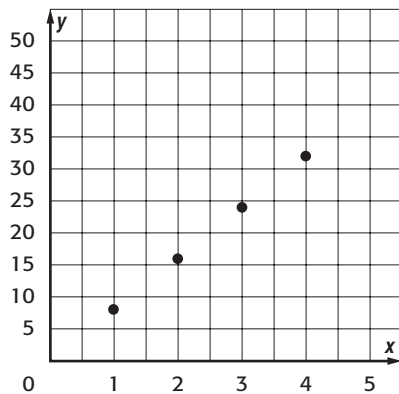
The number of cakes is not proportional to the number of hours because the graph does not pass through the origin.

- 2. RAINFALL** It rained 2 inches in one hour, then after two hours, it had rained a total of 3 inches. After four hours, it had rained a total of 5 inches. Determine whether the number of inches of rainfall is proportional to the number of hours.



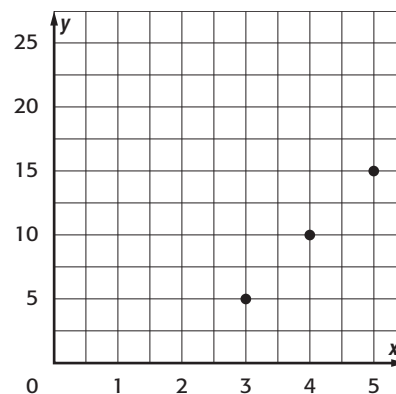
The number of inches of rainfall is not proportional to the number of hours because the graph does not pass through the origin.

- 3. CALORIES** A person can burn 8 Calories per minute of running. Determine whether the number of Calories is proportional to the number of minutes.



The number of Calories is proportional to the number of minutes because the graph is a straight line that passes through the origin.

- 4. PROFIT** If Stephanie sells 3 necklaces, she earns a profit of \$5. If she sells 4 necklaces, her profit is \$10. Five necklaces sold gives her a profit of \$15 and six necklaces sold gives her a profit of \$20. Determine whether the amount of profit is proportional to the number of necklaces sold.



The amount of profit is not proportional to the number of necklaces sold because the graph does not pass through the origin.