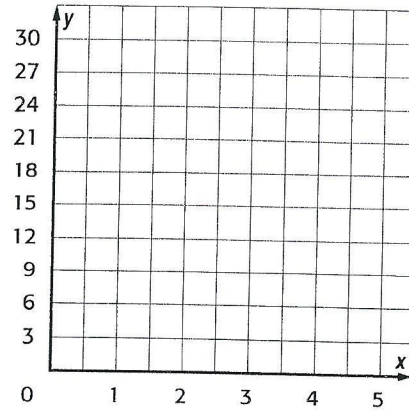**Determine whether the relationship between the two quantities shown in each table are proportional by graphing on the coordinate plane.**
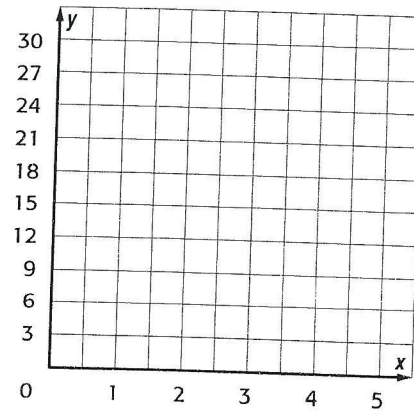
1.

Volume of a Cube	
Side Length (ft)	Volume (ft³)
1	1
2	8
3	27

3.

Gallons of Gas Used Per Hour	
Number of Hours	Gallons of Gas
3	15
4	20
5	25

Determine whether each pair of ratios form a proportion.

6. $\frac{6}{8}, \frac{15}{20}$

4. $\frac{16}{9}, \frac{11}{6}$

3. $\frac{6}{8}, \frac{9}{12}$

Solve each proportion.

16. $\frac{5}{10} = \frac{8}{w}$

17. $\frac{x}{9} = \frac{4}{15}$

15. $\frac{7}{z} = \frac{84}{12}$

1. **TRAVEL** During Tracy's trip across the country, she traveled 2,884 miles. Her trip took 7 days. Find a unit rate to represent the average miles she traveled per day during the trip.

1. **USAGE** A 12-ounce bottle of shampoo lasts Enrique 16 weeks. How long would you expect an 18-ounce bottle of the same brand to last him?

6. **SHELVES** A bookshelf holds 43 books on each shelf. Is the total number of books proportional to the number of shelves in the bookshelf?

Shelves	1	2	3
Books			

2. **RECREATION** An outdoor swimming pool costs $8 per day to visit during the summer. There is also a $25 yearly registration fee. Is the total cost proportional to the total number of days visited?

Days	1	2	3
Cost			

For Exercises 1–3, use the table of values. Write the ratios in the table to show the relationship between each set of values.

2.

Number of Packages	1	2	3	4
Total Cost	$11	$20	$29	$38
Ratios (Divide)				

For Exercises 4–8 use the table of values. Write *proportional* or *nonproportional*.

4.

Number of Hours	1	2	3	4
Total Amount Earned	$0.99	$1.98	$2.97	$3.96