REVIEW: Graphs of Proportional Relationships

Name _____

Key Concept and Vocabulary

x and y are proportional. $y = kx$

constant of proportionality

output

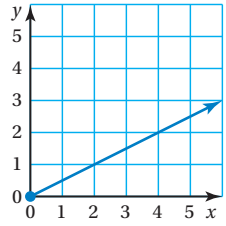
input

Visual Model

For positive values of x and y, as x increases, y increases.

$y = \frac{1}{2}x$

through origin



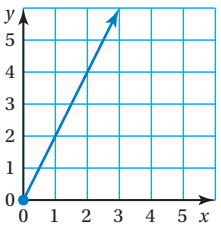
Skill Example

1. Equation: $y = 2x$

Table:

x	0	1	2	3
y	0	2	4	6

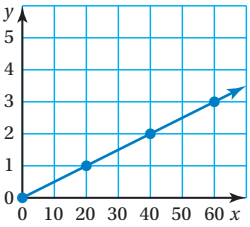
Graph:



Application Example

2. The table shows the amount y (in gallons) of gasoline that a car uses to travel x miles. Graph the relationship.

x	y
20	1
40	2
60	3



∴ x and y are proportional.

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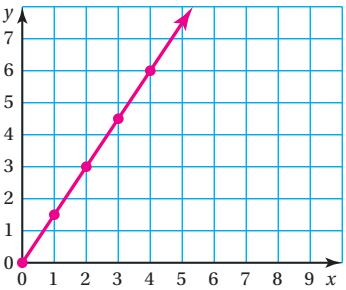
Check your answers at BigIdeasMath.com.

Complete the table. Then sketch the graph.

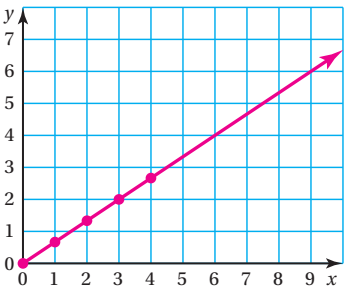
3. $y = 1.5x$

x	y
0	0
1	1.5
2	3
3	4.5
4	6



4. $y = \frac{2}{3}x$

x	y
0	0
1	$\frac{2}{3}$
2	$\frac{4}{3}$
3	2
4	$\frac{8}{3}$



5. WALRUS The amount y that a walrus eats is proportional to its weight x. A 4000-pound walrus eats 20 pounds each day. How much does a 2000-pound walrus eat each day? 10 lb