

Key

## 7.4 Extra Practice

I can find the constant of proportionality from a table. Show all your work on this paper.

1. Vince takes his empty cans to the recycling shop. The shop pays cash based on the total weight of the cans Vince brings in for recycling. Use the table below to answer the questions:

$x$ (pounds)	$y$ (dollars)
8	\$2
12	\$3
16	\$4
20	\$5
$x$	\$30
$x$	\$44

- a) What is constant of proportionality?

$$K = \frac{1}{4}$$

- c) How many pounds will Vince have to bring if he wants to be paid \$30?

$$30 = \frac{1}{4}x$$

$$120 = x$$

120 lbs.

- b) Write an equation for the relationship.

$$y = \frac{1}{4}x$$

- d) If Vince gets paid \$44, how many pounds did he bring to the shop?

$$44 = \frac{1}{4}x$$

$$176 = x$$

176 lbs.

2. Michelle is going to Chicago to shop and see a baseball game. To avoid traffic, Michelle decides to take the train. Use the table below to answer the questions.

$x$ (minutes)	$y$ (miles)
1	5
2	10
6	30
7	35
$x$	105
55	$y$

- a) What is constant of proportionality?

$$K = 5$$

- c) How long will it take Michelle if she has to travel 105 miles?

$$105 = 5x$$

$$21 = x$$

21 mins.

- b) Write an equation for the relationship.

$$y = 5x$$

- d) How many miles will Michelle travel is she is on the train for 55 minutes?

$$y = 5(55)$$

$$y = 220$$

220 miles

### 7.4 I can use a table to determine if the relationship varies directly.

3)

$x$	$y$
0	0
3	1
6	2
9	3
12	4

True or False

$$K = \frac{1}{3}$$

4)

$x$	$y$
0	0
4	16
8	32
16	64
19	76

True or False

$$K = 4$$

5)

$x$	$y$
0	0
0	1
0	2
0	3
0	4

True or False

6)

$x$	$y$
-2	4
-1	2
0	0
1	2
2	4

True or False