NAME:



## Purpose

To understand scale factors between equal ratios

### Math Words

times as many	\$300 is 6 times as many dollars as \$50.
on average	A basketball player makes 34 points a game on average, but he may make more or fewer points in any game.
scale factor	30 minutes of exercise compared to 90 minutes shows an increase by a scale factor of 3.

#### Starter Problem.....

On average, Liz makes 5 shots for every 6 tries in basketball. About how many shots would you expect her to make in 150 tries? \_\_\_\_\_

NAME:

··Starter Problem-······

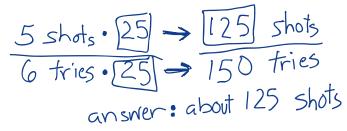
On average, Liz makes 5 shots for every 6 tries in basketball. About how many shots would you expect her to make in 150 tries?

## Student Thinking



150 tries is 25 times as many as 6 tries, so the scale factor is 25. Liz should make about 25 times as many as 5 shots. That's about 125 shots out of 150 tries.







5 shots is 1 less than 6. So 1 less than 150 is 149. It'll be about 149 shots.



about 149 shots

# Things to Remember

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*	



### Our Turn

Solve. Use a diagram, such as two number lines or a table, for each problem.

1. A recipe for soup calls for a liquid to vegetable ratio of 11:3. If a school cook has 27 cups of vegetables, how many cups of liquid should be used?

2. Kyle's basketball statistics say he makes 3 shots for every 10 tries. How many tries would you expect him to make before he has 150 successful shots?

3. The Bailey family eats about 5 pounds of rice in 3 weeks. How many weeks will a 40-pound bag last?

**NAME:** 

## My Turn

Solve. Use a diagram, such as two number lines or a table, for each problem.

1. Mrs. Johnson paid \$6 for 14 little plants. At that rate, how many little plants should she be able to buy for \$42?

2. Mrs. Ramirez noticed that in the winter an average of 4 out of 27 students were absent each day from her class. At that rate, how many absences would be expected each day in a school of about 540 students?

3. A recipe for snack mix calls for a raisins to peanuts ratio of 2:5 by weight. If there are 80 kilograms of peanuts to use in a factory's mixture, how many kilograms of raisins should be mixed in?

Math Pathways & Pitfalls® \* Unit 7 \* Lesson 3

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1. Mrs. Johnson's class earns \$4 for every 5 pounds of aluminum that they recycle. How many pounds do they need to collect to earn \$100?				ney	
	O 25	○ 80	O 100	O 125	
2.	with 8 ounces	of pineapple. If	Kim has 48 ounce	for 12 ounces of straves es of pineapple, how big batch of the drin	many
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	Writing	Task	Mini	Lesson
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A cornbread recipe has a flour to cornmeal ratio of 5:3 that if you have 150 grams of cornmeal, you need 250	•

# 25 Times as Many

STUDENT PAGE

6

**NAME:** 

#### **Writing Task Mini Lesson**

that if you have 15		I Know