Name _____

Practice
12-3

Using Cross Multiplication

Use cross multiplication to solve each proportion.

1. $\frac{16 \text{ oz}}{1 \text{ lb}} = \frac{x \text{ oz}}{5 \text{ lb}}$ _____

2. $\frac{45 \text{ cm}}{15 \text{ seconds}} = \frac{60 \text{ cm}}{s \text{ seconds}}$ _____

3. $\frac{27 \text{ lessons}}{3 \text{ mo}} = \frac{n \text{ lessons}}{5 \text{ mo}}$ _____

4. $\frac{48 \text{ favors}}{12 \text{ guests}} = \frac{f \text{ favors}}{15 \text{ guests}}$ _____

5. $\frac{m \text{ min}}{3 \text{ blocks}} = \frac{32 \text{ min}}{8 \text{ blocks}}$ _____

6. $\frac{30 \text{ lb}}{5 \text{ weeks}} = \frac{54 \text{ lb}}{w \text{ weeks}}$ _____

Because each planet has a different gravitational force, the weight of objects on Earth is not the same as their weight on other planets. Use proportions to answer **7–8**.

7. An object that weighs 10 pounds on Earth weighs 9 pounds on Venus. How much would an object that weighs 90 pounds on Earth weigh on Venus?

_____

8. An object that weighs 234 pounds on Jupiter weighs 100 pounds on Earth. How much would an object that weighs 250 pounds on Earth weigh on Jupiter?

_____

9. Algebra Cecelia has read 12 books this summer and has collected 72 tokens from the library's summer reading program. Which of the following shows how to solve for the number of tokens awarded for each book?

A $\frac{12}{72} = \frac{t}{1}$

B $\frac{12}{1} = \frac{t}{72}$

C $\frac{12}{72} = \frac{1}{t}$

D $\frac{1}{12} = \frac{72}{t}$

10. Writing to Explain Explain how you would use mental math to solve this proportion. $\frac{75}{w} = \frac{1}{2}$

_____

11. Number Sense Are the two ratios that make up a proportion always, sometimes, or never equivalent?

_____