

Answers to the Quiz Review

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|----------------------------|------------------|
| 1. 7 to 10, 7:10, and 7/10 | 9. n = 6.35 |
| 2. \$74 / 1 night | 10. x = 19 |
| 3. 14 pens / 1 box | 11. 135.45 miles |
| 4. Package of 14 pens | 12. 7 weeks |
| 5. 1.65 km | 13. 325 children |
| 6. \$29,200 | 14. Yes |
| 7. 2.25 hours | 15. No |
| 8. s = 4 | |

Do Now:

Tell whether the ratios form a proportion.

- a.) $\frac{11}{12}, \frac{67}{72}$ (No) b.) $\frac{10}{75}, \frac{2}{15}$ (Yes)

Solve the proportion.

a.) $\frac{x-4}{42} = \frac{14}{84}$ b.) $\frac{22}{38} = \frac{33}{2x+7}$

$84(x-4) = 42(14)$ $22(2x+7) = 38(33)$

$84x - 336 = 588$ $44x + 154 = 1254$

$ + 336 + 336$ $ - 154 - 154$

$84x = 924$ $44x = 1100$

$\frac{84x}{84} = \frac{924}{84}$ $\frac{44x}{44} = \frac{1100}{44}$

$x = 11$ $x = 25$

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35) a) $\frac{15 \div 3}{24 \div 3} = \frac{5}{8}$ $\frac{5}{8} = \frac{x}{200}$

$\frac{5x}{8} = \frac{1000}{8}$

$x = 125$

125 grams of gold

b) $\frac{18}{24} = \frac{27}{x}$ $\frac{18x}{18} = \frac{648}{18}$

$x = 36$

36 grams of total mass

39) $\frac{15-x}{45} = \frac{15}{75}$

$75(15-x) = 45(15)$

$1125 - 75x = 675$ $\frac{1125}{-75} = \frac{675}{-75}$

$-1125 -1125$ $ - 675 -675$

$-75x = -450$

$\frac{-75x}{-75} = \frac{-450}{-75}$

$x = 6$

(4)

$$\frac{a}{b} \text{ } \frac{c}{d} \text{ then } \frac{d}{c} \text{ } \frac{b}{a}$$

$a \cdot d = b \cdot c$ $d \cdot a = c \cdot b$

6.2 Writing and Solving Proportions

7.RP
7.EE
8.EE

- SWBAT write and solve proportions.
- SWBAT represent and analyze situations using algebraic symbols.

Calculators: Yes

6.3 Solving Proportions Using Cross Products

7.RP
7.EE
8.EE

- SWBAT solve proportions using cross products.
- SWBAT represent and analyze situations using algebraic symbols.

Calculators: Yes

During an outbreak of influenza, 2 students in Mr. Kuhlthau's 1st block class were absent. There are 30 students in his class. If the same absentee rate is valid for the entire student population of 1200 students, write and solve a proportion to determine how many students were absent during the outbreak.

$$\begin{array}{l} \text{Sample Size} \qquad \qquad \text{Actual Size} \\ \frac{2 \text{ students absent}}{30 \text{ students total}} = \frac{x \text{ students absent}}{1200 \text{ students total}} \end{array}$$

$$\frac{1}{15} = \frac{x}{1200}$$

$$\frac{15x}{15} = \frac{1200}{15}$$

$$x = 80$$

$$\frac{2}{30} = \frac{x}{1200}$$

$$30x = 2(1200)$$

$$\frac{30x}{30} = \frac{2400}{30}$$

$$x = 80$$

80 students were absent.

- Four notebooks cost \$4.40. How many notebooks can you buy for \$6.60? 6 notebooks
- Two roses cost \$3.50. How many roses can you buy for \$17.50? 10 roses
- A roll of paper towels cost \$1.90. How many rolls can you buy for \$9.50?
- Christian works 8 hours and earns \$52. How many hours would he have to work to earn \$130?

Human hair grows about 0.7 cm in 2 weeks. How long does hair take to grow 14 cm?

Exit Pass 6.2

You are knitting a scarf with red, green and blue stripes. There are equal numbers of red and blue stripes. There are twice as many green stripes as there are red stripes. The scarf has 20 stripes.

- Find the ratio of the number of red stripes to the total number of stripes on the scarf.
- How many red stripes are there on the scarf?

Exit Pass 6.3

A post office sells first-class stamps and postcard stamps. For the year, the post office sold 7 first-class stamps for every 2 postcard stamps sold.

- The post office sold 46,260 ^{total} stamps for the year. How many of them were first-class stamps? How many were postcard stamps?

$$\frac{7 \text{ first class}}{9 \text{ total}} = \frac{x \text{ first class}}{46,260 \text{ total}}$$

$$\frac{2 \text{ post card}}{9 \text{ total}} = \frac{x \text{ postcard}}{46,260 \text{ total}}$$

b. First-class stamps sold for \$0.37 each. Postcard stamps sold for \$0.23 each. Write a ratio for the amount of money collected for first-class stamps to the amount of money collected for postcard stamps.

c. Is the ratio you wrote in part (b) proportional to the ratio of first-class stamps sold to postcard stamps sold?

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the workbook.

Workbook pg.



Reflection of Today's Lesson

6.3 Solving Proportions Using Cross Products

7.RP
7.EE
8.EE

- SWBAT solve proportions using cross products.
- SWBAT represent and analyze situations using algebraic symbols.

Calculators: Yes

Homework

Finish the quiz review!

