Name: Key Hour: _____ Date: _____ Score: _____ ID: A

Chapter 5 Test Practice

Multiple Choice
Identify the choice that best completes the statement or answers the question.
SHOW ALL WORK. Place the answers on the lines provided.

D 1. Jon's summer baseball league has 72 thirteen-year-olds and 44 fourteen-year-olds. Write the ratio of thirteen-year-olds to fourteen-year-olds in all three forms.
   a. $\frac{11}{18}$, 11 to 18, 11:18
   b. $\frac{18}{29}$, 18 to 29, 18:29
   c. $\frac{11}{29}$, 11 to 29, 11:29
   d. $\frac{18}{11}$, 18 to 11, 18:11

D 2. In the last three years, Frederico's basketball team won 50 more games than they lost. If they won 120 games, what was the ratio of wins to losses? Write the ratio in all three forms.
   a. $\frac{12}{5}$, 12 to 5, 12:5
   b. $\frac{12}{17}$, 12 to 17, 12:17
   c. $\frac{5}{12}$, 5 to 12, 5:12
   d. $\frac{12}{7}$, 12 to 7, 12:7

C 3. You can get 400 calories from eating 5 apples. How many calories can you get from eating 1 apple?
   a. 83 calories per apple
   b. 82 calories per apple
   c. 80 calories per apple
   d. 81 calories per apple

B 4. Tony and Tiffany collect semi-precious stones. At the Rockhound Hut, Tiffany paid $42 for 8 pounds of snowflake obsidian. At The Solid Rock Shop, Tony paid $23 for 3 pounds of the same type of stone. Who made the better buy?
   a. Tony
   b. Tiffany

B 5. Determine whether the ratios $\frac{5}{8}$ and $\frac{12}{14}$ are proportional.
   a. proportional
   b. not proportional

A 6. Determine whether the ratios $\frac{15}{9}$ and $\frac{60}{45}$ are proportional.
   a. not proportional
   b. proportional

B 7. Determine whether the ratios $\frac{8}{10}$ and $\frac{24}{30}$ are proportional.
   a. not proportional
   b. proportional

B 8. Marie rode her bike 365 kilometers in 20 hours last month. Tamara rode her bike 323 kilometers in 17 hours last month. Are these speed rates proportional? Explain.
   a. No; Marie's distance and time are greater than Tamara's distance and time.
   b. No; Marie's rate is 18.25 km/h and Tamara's rate is 19 km/h.
   c. Yes; Marie's and Tamara's rates are almost the same.
   d. Yes; to find both speed rates, you need to divide the distance by the time.

B 9. Use cross products to solve the proportion $\frac{q}{6} = \frac{33}{24}$.
   a. $q = 4$
   b. $q = 8.25$
   c. $q = 198$
   d. $q = 4.36$

C 10. The Anderson family is preparing for a family reunion. They think they will need 12 juice boxes for every 3 children who attend. How many juice boxes will they need if they are expecting 22 children?
   a. 12 juice boxes
   b. 36 juice boxes
   c. 88 juice boxes
   d. 264 juice boxes

Name: _____ **ID: A**

B 11. Convert 768 oz to pounds.

a. 18 pounds
b. 48 pounds
c. 24 pounds
d. 12 pounds

D 12. Convert 608 pt to gallons.

a. 19 gallons
b. 38 gallons
c. 28 gallons
d. 76 gallons

NOT ON TEST

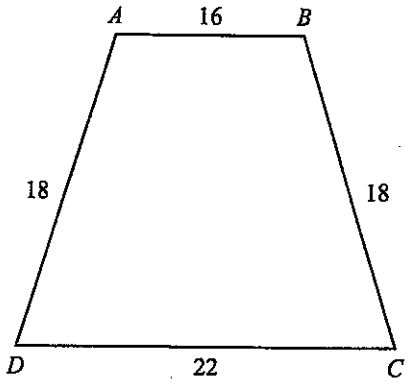
A 13. Convert 432 in. to feet.

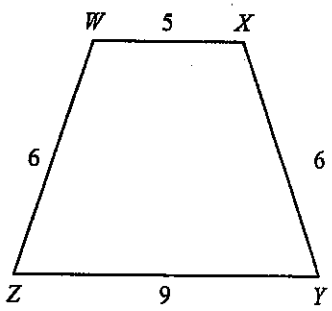
a. 36 feet
b. 18 feet
c. 9 feet
d. 13 feet

B 14. Jenny drank a 12-fluid-ounce bottle of water before tennis practice. After practice, she drank 4 cups of water. What is the total amount of water Jenny drank?

a. 5 c and 6 fl oz
b. 5 c and 4 fl oz
c. 7 c and 6 fl oz
d. 7 c and 4 fl oz

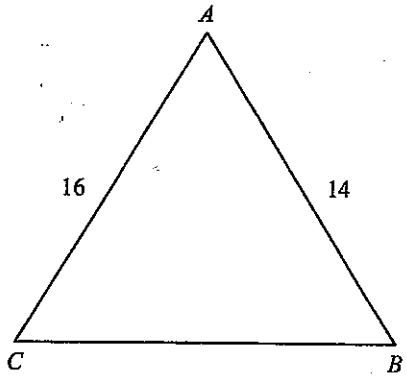
B 15. Tell whether trapezoid *ABCD* and trapezoid *WXYZ* are similar. The measures of the corresponding angles are equal. PROVE YOUR ANSWER.

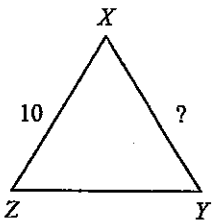




a. similar
b. not similar

A 16. $\Delta ABC \sim \Delta XYZ$. Find XY. PROVE YOUR ANSWER.





a. $s = 8.75$
b. $s = 11.43$
c. $s = 8$
d. $s = 22.4$

Name: _____ ID: A

B 17. Lisa and Susan are driving to college together. They look at a map to find out how far they have to drive. On the map, Lisa measures the distance to be 4 inches. How many miles do they have to drive if the map scale is 1 in. = 25 mi?

a. $6\frac{1}{4}$ miles
c. $\frac{4}{25}$ mile
b. 100 miles
d. 125 miles

D 18. Raquel uses 8 oranges to make 1 cup of orange juice. How many oranges would she use to make 1 gallon of juice?

a. 256 oranges
c. $\frac{1}{2}$ orange
b. 36 oranges
d. 128 oranges

B 19. A model airplane is built to a scale of 1 in.:12 ft. If the model plane is 11 inches long, find the length of the actual plane. Round your answer to the nearest foot.

a. 1584 feet
c. 13 feet
b. 132 feet
d. 11 feet

B 20. Identify the scale factor if the length of a model train engine is 21 inches and the length of the engine itself is 33 feet.

a. $\frac{7}{11}$
c. 396 to 1
b. $\frac{7}{132}$
d. $\frac{7}{4}$

Short Answer

21. While training for the Tour de France, Jean-Luc rode 72 km on his bike in just 4 hours. Find the unit rate. Show your work.

18 Kmph

22. To feed her family of 8, Abby spends $184 per week at the grocery store. Danielle's spending for her family of 5 is proportional to Abby's. How much does Danielle spend a week? Show your work.

$115

23. Explain how you could use your own height and the lengths of shadows to figure out the height of a tall building without measuring it.

Your height + shadow length can be used to form a triangle. The buildings height and shadow length can form a similar triangle. Set up a proportion to find the missing length.

Name _____ Date _____ Class _____

Puzzles, Twisters & Teasers

LESSON 5-9

Let's Rock!

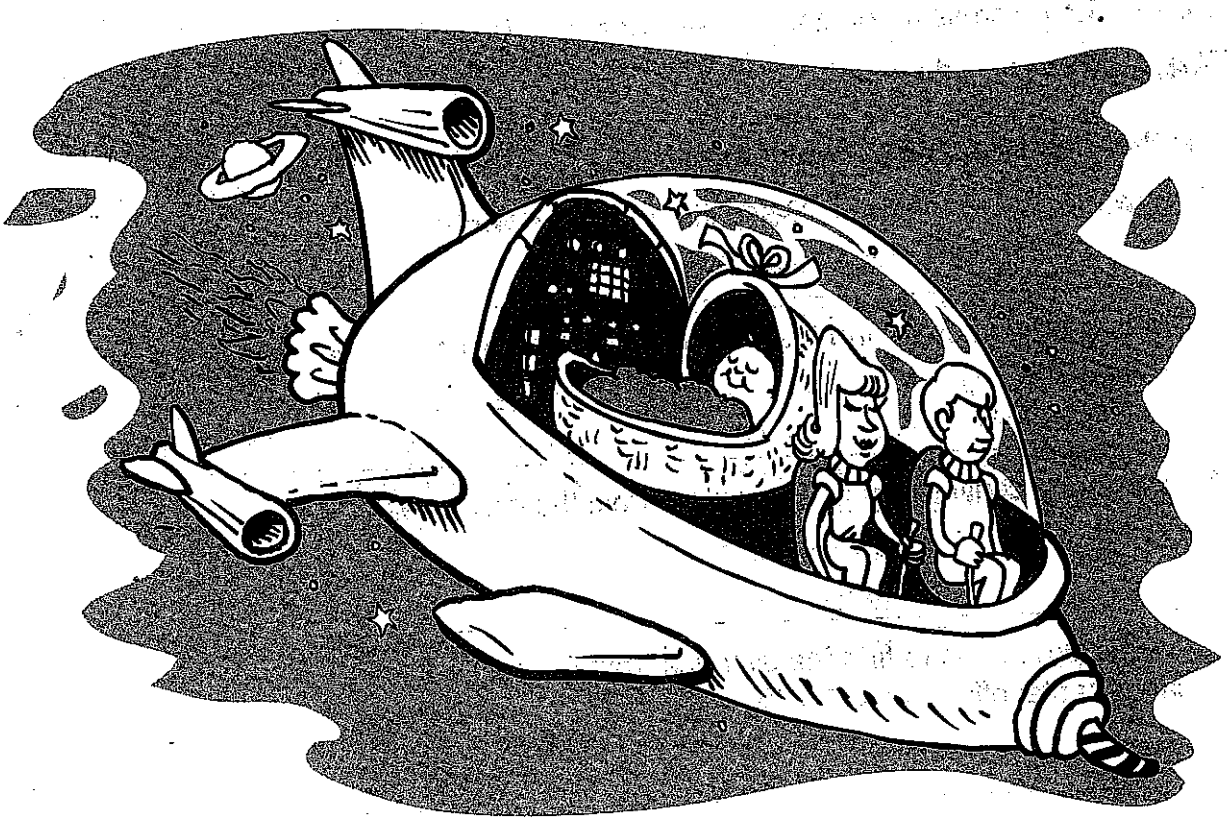
Find and circle these words in the word search. Find a word that solves the riddle. Circle it and write it on the line.

scale	model	drawing	factor	ratio
size	actual	dimensions	represent	proportion

V T S P R O P O R T I O N
M N V S B R M K O L J I R
O Y D I M E N S I O N S E
D A X Z R A T I O F F C P
E O P E V O Q W E A A A R
L I K L P S C R T U C L E
A S D F G H M K Q R T E S
A C T U A L B V E Z O E E
N O D R A W I N G T R O N
A J D F A K L M N T S N T

What do you do to make a baby sleep on a space ship?

You ___ ___ ___ ___ ___ ___.



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