

Some questions (c) 2012 by CSCOPE.

1

Large Texas oranges weigh $\frac{1}{2}$ of a pound each. Which equation shows the relationship between the number of oranges, N, and the weight in pounds, P?

Number of	Weight of
Oranges	Oranges
(N)	in pounds (P)
1	0.5
2	1.0
3	1.5
4	2.0

A
$$N + 0.5 = P$$

B
$$P + 0.5 = N$$

C
$$N \times 0.5 = P$$

D
$$P \times 0.5 = N$$

2 Look at the triangle patterns below.

This table shows the perimeter, in units, for the pattern of triangles that are side by side.

Number of	Perimeter
Triangles	(in units)
1	3
2	4
3	5
4	6
5	7

Based on this table, how many triangles would be needed to have a perimeter of 24 units?

F 23 triangles

G 22 triangles

H 21 triangles

J 20 triangles

- A recipe calls for 3 cups of flour and 2 cups of sugar. How many cups of flour would be needed if the amount of sugar was increased to 12 cups?
 A 36 cups
 B 24 cups
 C 18 cups
- **4** Mr. Franco's records show that 44% of his students bring their own lunches to school. Which decimal represents the percent of students in Mr. Franco's class who do NOT bring their lunches to school?
 - **F** 5.6
 - **G** 5.06

D 8 cups

- **H** 0.56
- **J** 0.056
- **5** Mr. Davis drives 508 miles in eight hours. At this rate, how many miles does he drive in six hours?
 - A 101 miles
 - **B** 254 miles
 - C 340 miles
 - **D** 381 miles
- **6** The Dallas Animal Shelter has many kinds of animals. One Saturday, the shelter had eight retrievers out of a total of 28 total dogs. The expected total dog population for the year is 490. Determine how many of the dogs they can expect will be retrievers.
 - Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

7 A school reporter surveyed a sample of sixth grade girls about their favorite Friday night activities. The table shows the results.

Friday Night Activities

Activities	Number of Votes
Movie	15
Eating Out	6
Slumber Party	5
Other	4

Based on the survey results, answer the following questions.

A. What ratio would represent the number of sixth grade girls surveyed who would choose a movie as their favorite Friday night activity?

B. If there are 300 sixth grade girls attending this middle school, use the ratio from part A to predict the number of girls who would choose a movie as their favorite Friday night activity.

C. Which two Friday night activities would the ratio three to two represent? Explain.

8 Walter makes a cable payment of \$84 each month. Which table represents the relationship between m, the number of months, and c, the amount he pays for cable for that length of time?

F	Month (m)	Cable (c)
	1	\$84
	2	\$164
	3	\$254

G	Month (m)	Cable (c)
	2	\$164
	4	\$326
	6	\$648

Н	Month (m)	Cable (c)
	84	\$1
	168	\$2
	252	\$3

J	Month (m)	Cable (c)
	3	\$252
	6	\$504
	9	\$756

- **9** In one hour, a seamstress can sew 52 yards of material. How many yards can she sew in 45 minutes?
 - **A** 39 yards
 - **B** 45 yards
 - C 52 yards
 - **D** 69 yards

- Maria's penny collection contains three Indian head pennies for every 36 Lincoln pennies. If Maria has 612 Lincoln head pennies, how many Indian head pennies does she have?
 - **F** 17 Indian head pennies
 - **G** 51 Indian head pennies
 - H 108 Indian head pennies
 - **J** 204 Indian head pennies

- 11 A flower arrangement has seven carnations and 21 daffodils. What is the ratio of carnations to the total number of flowers in the arrangement?
 - **A** 1 to 2
 - **B** 1 to 3
 - C 1 to 4
 - **D** 3 to 4
- 12 At a delicatessen there are 54 different types of meats and cheeses. If the ratio of cheese to meat is 4:5, how many types of cheese are available?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

- 13 For every 16 games the baseball team won, they lost three. Which ratio correctly compares the number of games lost to the number of games played?
 - A $\frac{3}{19}$
 - **B** $\frac{3}{16}$
 - **c** $\frac{16}{3}$
 - **D** $\frac{19}{3}$

14 Frank typed four pages in 24 minutes in keyboarding class. Rosetta typed six pages in 30 minutes. Who typed more pages per minute, Frank or Rosetta? Explain your answer.