

EOG REVIEW: Number System

Name: Key E# _____

1) How many $\frac{2}{3}$ cup portions are in $\frac{1}{6}$ cup of juice?

A) $\frac{1}{3}$ of a portion

B) $\frac{1}{4}$ of a portion

C) 4 of a portion

D) $\frac{5}{6}$ of a portion

$$\frac{1}{6} \div \frac{2}{3} \rightarrow \frac{1}{6} \cdot \frac{3}{2} = \frac{1}{4}$$

2) Kris wants to save \$72 for his mother's gift. Her birthday is in 3 weeks and has saved \$42. How much will he need to save each week in order to buy her birthday gift?

A) \$12

B) \$16

C) \$10

D) \$12.50

$$\begin{array}{r} 72 \\ -42 \\ \hline 30 \end{array} \quad 30 \div 3 = 10$$

3) A student is growing plants for a science project. Plant 1 is 12.45 cm tall. Plant 2 is 4.5 cm is taller than Plant 1 and Plant 3 is 3.75 cm shorter than Plant 2. How tall is Plant 3?

A) 12.25 cm

$$\begin{array}{r} 12.45 \\ + 4.5 \\ \hline 16.95 \\ - 3.75 \\ \hline 13.20 \end{array}$$

B) 13.2 cm

C) 20.7 cm

D) 25.45 cm

4) You are making bags of trail mix for a field trip. You have 12 ounces of peanuts and 36 ounces of cashews. You need to have the same amount of nuts in each bag. What is the greatest number of bags that you can make that will have the same number of ounces of nuts in each bag?

A) 12 bags

B) 48 bags

C) 6 bags

D) 9 bags

$$\begin{array}{r} 2 \overline{) 12 \quad 36} \\ \underline{2 \quad 6 \quad 18} \\ 3 \quad 9 \end{array}$$

5) To rent a bicycle at the beach there is an initial fee of \$12. For each hour the bicycle is rented, there is an additional \$5 fee. If the charge was \$27, how long was the bicycle rented?

A) 7 hours

B) 9 hours

C) 3 hours

D) 5.4 hours

$$\begin{array}{r} 27 \\ -12 \\ \hline 15 \end{array} \quad 15 \div 5$$

6) Sal and Jane are go to a baseball game. Popcorn bags cost \$3 each and drinks are \$4 each. Sal and Jane order 3 bags of popcorn and 4 drinks and pay with a \$50 bill. What is their change?

A) \$30

B) \$22

C) \$15

D) \$25

$$3(3) + 4(4) \quad 50 - 25 \\ 9 + 16$$

7) Maddie cuts a 6 yard length of ribbon into $\frac{1}{3}$ yard pieces. How many cuts did she make?

A) 17 cuts

B) 12 cuts

C) 8 cuts

D) 18 cut.

$$6 \div \frac{1}{3} \rightarrow \frac{6}{1} \cdot \frac{3}{1} \quad 18 \text{ pieces (17 cuts makes 18 pieces)}$$

8) Kate has 8 cups of flour. It takes $\frac{5}{6}$ cup of flour to make one cake. How many cakes can Kate make?

A) 9 cakes

B) 10 cakes

C) 8 cakes

D) 12 cakes

$$8 \div \frac{5}{6} \\ 8 \cdot \frac{6}{5} = \frac{48}{5}$$

9) A marathon is a 26.2 mile run. Four friends wanted to run an equal amount of the race. The first runner developed an injury after 0.7 miles. How much will each of the remaining runners have to run?

- A) 12 miles B) 6.55 miles **C) 8.5 miles** D) 13.1 miles
- 25.5 ÷ 3**

10) A new school is ordering math text books. They are $\frac{3}{4}$ of an inch thick. How many of these books will fit into a book shelf that is 7 feet long?

- A) 10 books B) 12 books C) 8 books **D) 9 books**

$$7 \div \frac{3}{4} = 7 \cdot \frac{4}{3} = \frac{28}{3}$$

11) A boarding school has 416 students enrolled for the new school year. It has 8 dormitories that hold the same number of students. How many students will be housed in each dormitory?

- A) 52 students** B) 26 students C) 48 students D) 41 students

$$416 \div 8$$

12) Jackson is the star basketball player for his team. He averaged 19.25 points during the basketball season. If he played in 24 games, how many points did he score?

- A) 564 points **B) 462 points** C) 432 points D) 249 points

$$19.25 \times 24$$

13) Joe wants to buy a new video game for \$52.50. He puts \$3.75 in his piggy bank each day. How many days will it take him to save the money for the game?

- A) 11 days B) 8 days C) 12 days **D) 14 days**

$$52.50 \div 3.75$$

14) There are 6 pizzas to be divided for the baseball team, which has 15 players. How much of each pizza will each player receive?

- A) $\frac{2}{5}$ of a pizza** B) $\frac{1}{2}$ of a pizza C) $\frac{1}{3}$ of a pizza D) 1 whole pizza

$$6 \div 15 = 0.4$$

15) Sally is planning a flower garden. She has 36 daisy plants, 27 marigold plants, 54 phlox plants and 18 petunia plants. She wants each row of her garden to have the same number of each type plant. What is the greatest number of rows that she can have if she uses all of her plants?

- A) 3 daisy, 6 marigold, 6 phlox and 2 petunias C) 12 daisy, 18 marigold, 9 phlox and 9 petunias
- B) 4 daisy, 3 marigold, 6 phlox and 2 petunias D) 4 daisy, 9 marigold, 6 phlox and 2 petunias

3	36	27	54	18
3	12	9	18	6
4	3	6	2	

16) Kay has three pieces of luggage to take on a trip. The total amount of the luggage is 52.5 km. One piece weighs 37.9 km. How much do each of the other pieces weigh if they are the exact same weight?

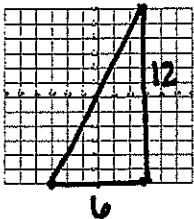
- A) 14.6 km **B) 7.3 km** C) 21.9 km D) 39 km
- 14.6 ÷ 2**

★ 17)

Three points of a figure are A(-6,3), B(6,3) and C(6,-3). What is the area of the figure?

- A) 84 sq units C) 21 sq units
- B) 42 sq units D) 72 sq units

36 units²

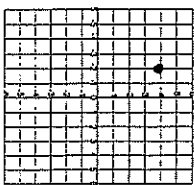


18) Which point is the image of (-2,4) reflected across the x axis and then across the y axis?

- A) (2,4) **C) (2,-4)**
- B) (-2,-4) D) (4,-2)

$$x (-2, -4)$$

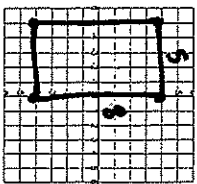
$$y (2, -4)$$



19)

Graph and connect the points, (0,4), (0,-4), (-5,-4) and (-5,4), on the coordinate plane to form a shape. What is the area and perimeter of the figure?

- A) A= 26sq. units P= 40 units C) A= 21 sq. units P= 26 units
- B) A= 40 sq. units P= 13 units **D) A= 40 sq. units P= 26 units**



20) Three rectangles have been divided into fourths. Using the rectangles shown, what is $3 \div \frac{3}{4}$?

- A) $3 \frac{1}{4}$ **B) 4** C) 6 D) $4 \frac{1}{3}$

$$3 \cdot \frac{4}{3} = 4$$