

I.

Write the number in scientific notation.

123,520,000

$$1.2352 \times 10^8$$

J.

Write the the decimal as a fraction or mixed number.

0.48

$$4.8 \times 10^{-1}$$

K.

The width of a rectangular garden is 30 feet. The perimeter of the garden is 170 feet. What is the length of the garden? $P = 2l + 2w$

Define variable: $l = \text{length of garden}$

Equation/Formula:

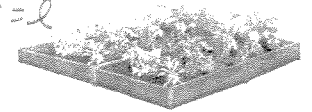
$$170 = 2l + 2(30)$$

$$170 = 2l + 60$$

$$110 = 2l \quad 55 = l$$

Solution sentence:

The garden is 55 feet long.



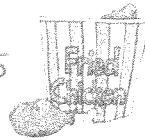
L.

You buy a bucket of fried chicken for \$8.95. Sides cost \$1.25 each. You paid a total of \$13.95. Write an equation that you could use to find the number of sides that were purchased.

Define variable: $x = \# \text{ of sides}$

Equation/Formula:

$$8.95 + 1.25x = 13.95$$



M.

Which decimal is bigger than the fraction. Show how you know.

$$\frac{3}{4}$$

a. 0.43

b. 0.0034

c. 0.75

d. 0.8

$$\begin{array}{r} 0.75 \\ 4 \overline{) 13.00} \\ \underline{28} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

N.

Use estimation to find the product.

$$24.38 \cdot (-7.11)$$

$$-173.3418$$

O.

Write the number in scientific notation.

0.0000003458

$$3.458 \times 10^{-7}$$

P.

Write an exponent so that the number in standard form will be very large.

$$2.3 \times 10^?$$

Ex: 2.3×10^{13}

Q.

Write an exponent so that the number in standard form will be very small.

$$8.7 \times 10^?$$

Ex: 8.7×10^{-9}

Math 8 Review
Ch 5 (Decimals) & Re-test: 2-Step Equations

Name KEY

A.

Write the mixed number as a decimal.

$$2\frac{4}{15} \quad 2.2\bar{6}$$

B.

A teacher is registering a math team for a competition. It costs \$100 for the registration fee and \$12 for each student going to the competition. The total cost for the math team is \$172. Write and solve an equation to find the number of students on the math team.

Define variable: $x = \#$ of students

Equation/Formula:

$$100 + 12x = 172$$

$$12x = 72$$

$$x = 6$$

Solution sentence:

There were 6 students on the team.



C.

Find the sum. Show your work.

$$-9.21 + 2.637$$

$$-6.573$$

D.

Solve the equation.

$$8x - 15 = 73$$

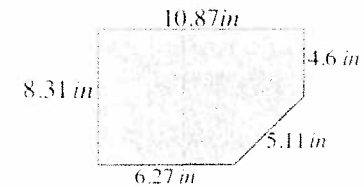
$$+15 \quad +15$$

$$\frac{8x - 32}{8} = \frac{88}{8}$$

$$x = 11$$

E.

Find the perimeter of the shape.



$$35.16 \text{ in}$$

F.

Desmond rode his bicycle 34.96 miles. It took him 2.3 hours to complete the ride. What was his average speed in miles per hour?

$$r = \text{speed}$$

$$d = r \cdot t$$

$$34.96 = r \cdot 2.3$$

$$\frac{34.96}{2.3} = r$$

$$15.2 = r$$

His speed is 15.2 miles per hour.



G.

Mia is filling a large tank with water. The amount of water in the tank increases about 2.5 gallons every hour. After 6.5 hours how much water was in the tank?

$$d = r \cdot t \quad w = \text{amount of water}$$

$$w = r \cdot t$$

$$w = 2.5 \times 6.5$$

$$w = 16.25$$

There was 16.25 gallons in the tank.



H.

Write the number in standard form.

$$9.2 \times 10^{-6}$$

$$0.0000092$$