

Number Types Review

For numbers 1 and 2, state if the answer will be a positive or negative number and explain why.

1) $-2(-2)(3+4)(1057)$

- A) cannot be determined
- B) positive
- C) negative
- D) -

2) multiplying 3 negative numbers times 4 positive numbers will give you a

- A) positive
- B) -
- C) negative
- D) cannot be determined

Evaluate each expression.

3) $-3 + (-3 - 4) \cdot -6$

4) $(3 - (4 - 5)) \div -4$

5) $5 \div (5 - 6) + 6$

6) $(12 - (-2 + 4)) \div -5$

Rational vs Irrational Numbers Unit 1 Review

For each number state if it is rational or irrational and the type of number.

1) $\sqrt{45}$

2) $32.7878787...$

3) 100

4) $-\sqrt{100}$

5) -0.0034567969

6) $-3\pi + 3\pi$

7) $-\sqrt{3}$

8) $100 - \sqrt{45}$

Let $x = 3$, $y = 2\pi$, $z = \frac{2}{5}$. State if each of the following is rational or irrational.

9) $x + z$

10) $x + y$

11) $x * z$

12) $(x + y) * z$

Fractions Unit 1 Review

Simplify each expression. Your answer should be a simplified, improper fraction.

1) $\frac{31}{7} - -\frac{4}{3}$

2) $-\frac{7}{4} - \frac{19}{8}$

3) $\frac{5}{4} + -\frac{5}{3}$

4) $\frac{9}{7} - -\frac{7}{5}$

5) $\frac{10}{3} + \frac{3}{4} - \frac{3}{2}$

6) $\frac{5}{6} + 2 + \frac{53}{8}$

Write the reciprocal of each number

7) $\frac{4}{7}$

8) -3

Rewrite the mixed numbers as an improper fraction.

9) $7\frac{2}{9}$

10) $-4\frac{5}{2}$

Find each product.

11) $\frac{18}{5} \cdot -\frac{1}{2}$

12) $-\frac{7}{4} \cdot \frac{5}{7}$

Find each quotient.

13) $\frac{-2}{7} \div \frac{-5}{6}$

14) $\frac{17}{6} \div 7$

Unit 1 Review: Percents

Date

Solve each problem.

1) Round to the nearest hundredth.
345.297948123

2) Write 26% as a decimal.

3) Write $\frac{3}{50}$ as a percent.

4) 23% of 150.3 is what?

5) What percent of 156 is 64.9?

6) 160.5 is 75% of what?

Find the final cost.

7) Family dinner: \$42
Tip: 16%

8) Tickets to see Beyonce: \$128
Ticketing fee: 7%

9) New outfit: \$107
Back to school discount: 25%
Sales Tax: 8%

10) Regents Prep Book: \$35.87
Discount for buying online: 12%
Shipping fee: 4%

Rates & Unit Rates Unit 1 Review

Round to the nearest tenth or the nearest cent if necessary.

1. Find the missing piece. Distance = 320 km, Rate = 50 kilometers per hour, Time = ?

2. A plane flies at 546 mph for 5 hours. How far does the plane travel?

3. Julio is driving at 65 miles per hour. How many miles has he driven after 2.5 hours?

4. How long does it take a cruise ship to travel 112 miles at the speed of 24 mph?

5. A 6-pack of Coke costs \$2.53. How much does each can cost?

6. Four gallons of gas costs \$16.80. How many gallons do you get per dollar?

Word problems Review Answer the following questions. Show your work and explain your answer in a complete sentence.

1. Without finding the answer, will the answer be positive or negative?
 $-4(8)(-6)(-5)(6) \div 21(3)$

2. Joseph took a trip to Lafayette to visit his brother at college. On the way to Lafayette, the bus drove 55 km/h. On the way home, the bus went 22 km/h. How long did the trip to Lafayette take if the trip back took five hours?

3. Jared wants to buy FIFA 15 from Amazon. The game is listed at \$67.99, but Jared gets an 8% discount because he has Amazon Prime. Jared wants the game delivered overnight, which is an additional \$7.00 shipping charge. Amazon charges 6% tax on the total purchase. What is the final cost of the game?

4. Target sells 6 white t-shirts for \$25.50, Wal-Mart sells 4 white t-shirts for \$18.00, and Costco sells 5 white t-shirts for \$21.00. Which store has the best deal on white tees?

5. The iSchool needs to know the heights of all of the graduating seniors in order to size their gowns for graduation. Ms. Leimsider knows that Adam is 75" tall. Zena is 11" shorter than Adam. Marley is 6" taller than Zena. Karen is 44" taller than $\frac{1}{4}$ of Zena's height. Sam is 39" taller than $\frac{1}{3}$ of Karen's height. List the height of each student from tallest to shortest.

6. Vivianne has a \$100 gift card to Forever 21. She wants to buy a shirt for \$24.65, a pair of pants for \$17.50, a sweater for \$37.82, and a necklace for \$7.24. She also knows that

Modeling Expressions Review

1. What is the difference between an expression and an equation? Write out an example of each.
2.
 - a. Karen is having her bat Mitzvah next month and wants to estimate how much money she will get as a gift. She estimates that she will get \$25 from each adult attending, plus she knows her grandparents are giving her \$1000. Write an **expression** that represents how much money Karen will get using x as the number of adults who are coming to the party.
 - b. There were 27 adults at Karen's bat Mitzvah. Use your expression from part a to predict how much money Karen should have gotten.
 - c. Karen actually received \$2150 in gifts at her bat Mitzvah. Determine the percent error in your expressions prediction.
3. Every year the Girl Scouts of Willstown hold a fundraiser. In 2013 the girl scouts raised \$750 for their charity. In 2014 they raised \$920.
 - a. Determine the percent increase from 2013 to 2014. (round your answer the nearest percent)
 - b. In 2015 they raised \$1075. Determine the percent increase from 2014 to 2015. (round to the nearest whole percent) .
 - c. Find the average percent increase each year from 2013 to 2015.
 - d. use your answer from part c to predict the amount of money the girl scouts will raise in 2016.