

Write the whole number in words.

1) 9,300,695

1) _____

Add.

2)

$$\begin{array}{r} 587,142 \\ 30,645 \\ + 5,300,621 \\ \hline \end{array}$$

2) _____

Round the whole number to the given place.

3) 49,815,425 to the nearest million

3) _____

Simplify.

4) $12 + 16 \div 4 \cdot 5 - 8$

4) _____

Write the phrase as a variable expression. Use x to represent "a number."

5) The quotient of a number and 9, decreased by 4

5) _____

Add.

6) $1 + (-5) + 14 + (-2) + 4 + (-7)$

6) _____

Add or subtract as indicated.

7) $9 - 0 - 5 - (-20) + (-11)$

7) _____

Find the quotient.

8) $\frac{0}{5}$

8) _____

Solve.

9) Ben lost \$525 on each of 7 consecutive days in the stock market. If he had \$17,773 before his loss, how much does he have after his loss?

9) _____

Simplify.

10) $\frac{20(-1) - (-4)(-5)}{2[-12 \div (-3 - 3)]}$

10) _____

Solve the equation.

11) $-30 = y - 24$

11) _____

Simplify the expression.

12) $15 - |-30|$

12) _____

$$13) \frac{30}{5} - \frac{92}{9}$$

13) _____

Simplify the expression by combining like terms.

$$14) -4b - 3a + 2c + 3b - 5a$$

14) _____

Simplify the expression.

$$15) 4(6x + 2) + 5(x + 4)$$

15) _____

Solve the equation.

$$16) 3(8x - 4) = 28x$$

16) _____

$$17) -3(x + 2) - 18 = -8 - 4$$

17) _____

$$18) \frac{x}{-3} - 50 = 0$$

18) _____

$$19) 12x + 7 = 5x + 28$$

19) _____

$$20) 309 - 155 = 22(x - 1)$$

20) _____

$$21) 4(y + 3) = 6y + 12$$

21) _____

$$22) 4(3x - 2) + 7 = 8x + 3$$

22) _____

Write the sentence as an equation. Use x to represent "a number."

$$23) \text{ Four subtracted from nine times a number is equal to 23.}$$

23) _____

Solve.

$$24) \text{ Three times the sum of a number and 3 is 3 less than the number times 5. Find the number.}$$

24) _____

$$25) \text{ Greg sold his used electric saw and accessories for \$759. If he received ten times as much money for the electric saw as he did for the accessories, find how much money he received for the electric saw.}$$

25) _____

$$26) \text{ A high school graduating class is made up of 351 students. There are 73 more girls than boys. How many boys are in the class?}$$

26) _____

$$27) \text{ Jackie and her friend Warren ran for an open position on the board of directors of their favorite organization. Jackie received four times the votes that Warren received. There were 200 ballots cast. How many votes did Jackie receive?}$$

27) _____

Write the fraction in simplest form.

$$28) - \frac{51}{57x}$$

28) _____

Divide and simplify.

29) $\frac{3}{8} \div -\frac{5}{6}$

29) _____

Perform the indicated operations. Write the answer in simplest form.

30) $\frac{6}{5} \div \left(\frac{20}{7} \cdot \frac{6}{50} \right)$

30) _____

Add or subtract as indicated. Write the answer in simplest form.

31) $\frac{6}{17x} - \frac{15}{17x}$

31) _____

32) $\frac{7}{15} + \frac{9}{15} - \frac{1}{15} - \frac{2}{15}$

32) _____

Solve. Write the fraction in simplest form.

33) Hattie read $\frac{3}{10}$ of her book on Monday, $\frac{2}{10}$ of her book on Tuesday, and $\frac{1}{10}$ of her book on Wednesday. What part of her book has she read?

33) _____

Add or subtract as indicated. Write the answer in simplest form.

34) $\frac{5}{8} - \frac{1}{3}$

34) _____

Simplify the complex fraction.

35) $\frac{\frac{r}{4}}{4 - \frac{1}{2}}$

35) _____

Add or subtract as indicated. Write the answer as a mixed number in simplest form.

36)
$$\begin{array}{r} 1\frac{1}{6} \\ 2\frac{1}{16} \\ + 2\frac{1}{4} \\ \hline \end{array}$$

36) _____

Solve. Write the answer as a mixed number in simplest form.

37) A serving of filleted fish is generally considered to be $\frac{1}{3}$ lb. How many servings can be prepared from $6\frac{3}{8}$ lb of flounder fillet?

37) _____

Solve.

38) $\frac{a}{2} - \frac{1}{2} = -6$

38) _____

39) $\frac{x}{9} = \frac{x}{10} + \frac{1}{9}$

39) _____

Simplify the complex fraction.

40)
$$\frac{\frac{3x}{7}}{\frac{2x^2}{7}}$$

40) _____

Solve.

41) $\frac{x}{4} - \frac{x}{5} = \frac{5}{4}$

41) _____

Write the decimal number in standard form.

42) Fourteen and seven hundred forty-seven thousandths

42) _____

Perform the indicated operation.

43) $0.04 + (-2.537)$

43) _____

Simplify by combining like terms.

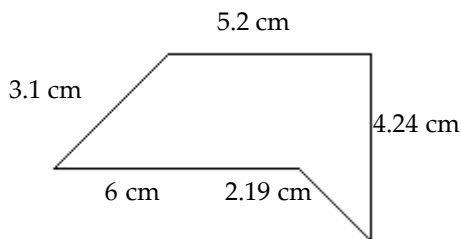
44) $-12.4 + 4.3x - 12.6 - 1.9x$

44) _____

Solve.

45) Find the perimeter of the figure below.

45) _____



46) A farmer sells 9000 bushels of tomatoes for \$2.85 a bushel. How much did the farmer receive?

46) _____

Evaluate the expression for the given replacement values.

47) $z \div 4.7$ for $z = 1.974$

47) _____

Solve.

48) Luke buys \$14.35 worth of gasoline for his car. If the gas station charges \$1.409 per gallon, how many gallons did he get? (Round to the nearest tenth.)

48) _____

Arrange the list of numbers in order from smallest to largest.

49) 0.05, 0.03, 0.035, 0.053

49) _____

Simplify the expression.

50) $(-3.4)^2 + 4.6 - 9.6$

50) _____

Find the value of the expression. Give the result as a decimal.

51) $\frac{4}{5}(-9.5 - 3.8)$

51) _____

Solve the equation.

52) $6(x - 1.9) = 9.3$

52) _____

Solve. If necessary, round answers to the nearest hundredth.

53) The grades are given for a student for a particular semester. Find the grade point average.

53) _____

The point values of grades are given below.

A : 4, B : 3, C : 2, D : 1, F : 0

Grade	Credit Hours
A	4
C	1
D	3
A	2
C	4

54) The following test scores were recorded for a student: 91, 47, 85, 47, 54. Find the mean, median, and mode.

54) _____

Write the rate as a fraction in simplest form.

55) 5 cars for 25 people

55) _____

Write the rate as a unit rate.

56) \$5490 earned in 9 weeks

56) _____

Find the unit price and decide which is the better buy. Round to three decimal places. Assume that we are comparing different sizes of the same brand.

57) Shampoo:

57) _____

\$7.80 for 14 ounces

\$5.50 for 10 ounces

Write the sentence as a proportion.

58) 2 tbsp of hot cocoa mix is to 4.5 cups of hot cocoa as 14 tbsp of hot cocoa mix is to 31.5 cups of hot cocoa.

58) _____

Determine whether the proportion is true or false.

59) $\frac{8}{24} = \frac{4}{12}$

59) _____

Solve the proportion for the given variable. Round the solution where indicated.

60) $\frac{12}{48} = \frac{-7}{y}$

60) _____

61) $\frac{x}{3.3} = \frac{0.07}{4}$

61) _____

Round to the nearest hundredth.

Solve.

- 62) A punch recipe calls for mixing 2 parts of cranberry juice with 5 parts of apple juice. Find how much cranberry juice should be mixed with 80 ounces of apple juice.

62) _____

Find the square root.

63) $\sqrt{\frac{1}{49}}$

63) _____

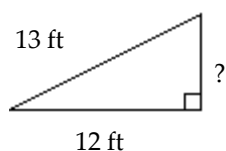
64) $\sqrt{\frac{25}{49}}$

64) _____

Find the unknown length in the right triangle.

65)

65) _____



Sketch the right triangle and find the length of the side not given.

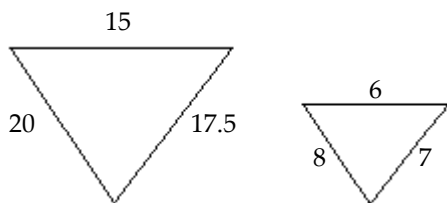
66) leg = 15, leg = 36

66) _____

Find the ratio of the corresponding sides of the given similar triangles.

67)

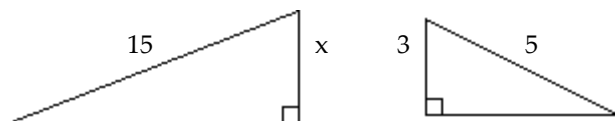
67) _____



Given that the pair of triangles is similar, find the unknown length of the side labeled with a variable.

68)

68) _____



Solve.

- 69) A dart player made 59 bull's eyes out of 100 attempted throws. What percent of the throws were bull's eyes? 69) _____

Write the decimal as a percent.

- 70) 0.7715 70) _____

Write the fraction or mixed number as a percent.

- 71) $\frac{8}{15}$ 71) _____

Translate to an equation and solve.

- 72) 21 is what percent of 50? 72) _____

- 73) 175% of 12 is what number? 73) _____

Solve. Round your answer to the nearest whole.

- 74) Joseph got 28 out of the 44 questions right on last Monday's test. What percent of the test did he do correctly? 74) _____

Solve. If necessary, round percents to the nearest tenth, dollar amounts to the nearest cent, and all other numbers to the nearest whole.

- 75) In a recent survey of 675 people, 27 said that their favorite color of car was white. What percent of the people surveyed liked white cars? 75) _____

- 76) Toby is taking May out to dinner. He has \$103.50 to spend. He wants to tip the server 15% of the cost of the meal. How much can he spend on the meal? 76) _____

- 77) The mosquito population within a defined area is estimated at 45 million. Due to weather conditions, it is projected that this population will increase by 40%. Find the increase and the projected population. 77) _____

- 78) Before taking a typing course, Frank could type 12 words per minute. By the end of the course, he was able to type 34 words per minute. Find the percent increase. 78) _____

Solve.

- 79) A sofa sells for \$1129. If the sales tax rate is 7.4%, what is the total price? 79) _____

- 80) Find the sale price when the original price is \$91.00 and the discount rate is 13%. 80) _____

Answer Key

Testname: PRE-ALGEBRA FINAL EXAM REVIEW

1) nine million, three hundred thousand, six hundred ninety-five

2) 5,918,408

3) 50,000,000

4) 24

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

6) 5

7) 13

8) 0

9) \$14,098

10) -10

11) -6

12) -15

13) -3

14) $-8a - 1b + 2c$

15) $29x + 28$

16) -3

17) -4

18) -150

19) 3

20) 8

21) 0

22) 1

23) $9x - 4 = 23$

24) 6

25) \$690

26) 139 boys

27) 160 votes

28) $-\frac{17}{19x}$

29) $-\frac{9}{20}$

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

31) $-\frac{9}{17x}$

32) $\frac{13}{15}$

33) $\frac{3}{5}$

34) $\frac{7}{24}$

35) $\frac{r}{14}$

36) $5\frac{23}{48}$

37) $19\frac{1}{8}$ servings

38) -11

39) 10

40) $\frac{3}{2x}$

41) 25

42) 14.747

43) -2.497

44) $2.4x - 25$

45) 20.73 cm

46) \$25,650.00

47) 0.42

48) 10.2 gal

49) 0.03, 0.035, 0.05, 0.053

50) 6.56

51) -10.64

52) 3.45

53) 2.64

54) mean: 64.8 median: 54 mode: 47

55) $\frac{1 \text{ car}}{5 \text{ people}}$

56) \$610.00/wk

57) 10 oz

58) $\frac{2 \text{ tbsp hot cocoa mix}}{4.5 \text{ cups hot cocoa}} = \frac{14 \text{ tbsp hot cocoa mix}}{31.5 \text{ cups hot cocoa}}$

59) True

60) -28

61) 0.06

62) 32 oz

63) $\frac{1}{7}$

64) $\frac{5}{7}$

65) 5 ft

66) 39

67) $\frac{5}{2}$

68) 9

69) 59%

70) 77.15%

71) $53\frac{1}{3}\%$

72) 42%

73) 21

74) 64%

75) 4%

76) \$90.00

Answer Key

Testname: PRE-ALGEBRA FINAL EXAM REVIEW

- 77) increase: 18 million mosquitos
projected population: 63 million mosquitos
- 78) 183.3%
- 79) \$1212.55
- 80) \$79.17