

Simplify.

1) $12 + 16 \div 4 \cdot 2 - 5$

1) _____

2) $4[3 + 7(9^2)]$

2) _____

3) $\frac{28(10 - 7) - 18}{3^2 - 3}$

3) _____

Perform the indicated operation and write the answer in simplest form.

4) $\left(\frac{3}{4}\right)^2 \div \left(\frac{3}{4} - \frac{1}{12}\right)$

4) _____

5) $\frac{7}{6} \div \frac{1}{8} \cdot \frac{1}{4}$

5) _____

Simplify the expression.

6) $5.7(2 - 1.4)$

6) _____

7) $(6.5 + 1.8)(4.9 - 1.5)$

7) _____

8) $\frac{(4.1)^2}{100}$

8) _____

Determine whether the number is divisible by 2, 3, 4, 5, 6, 9, and/or 10.

9) 18,460

9) _____

10) 3306

10) _____

Find the LCM.

11) 24, 18, and 52

11) _____

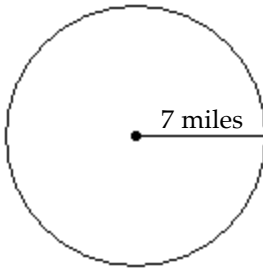
12) 8, 16, and 24

12) _____

Solve.

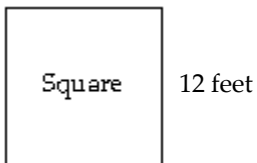
- 13) Find the exact circumference of the circle. Then use the approximation 3.14 for π and approximate the circumference.

13) _____



Find the perimeter and the area of the figure.

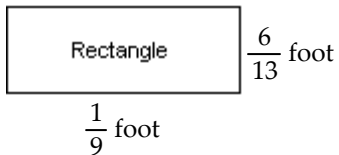
14)



14) _____

Find the perimeter and area of the figure.

15)



15) _____

Determine whether the fractions are equivalent.

- 16) $\frac{36}{99}$ and $\frac{32}{88}$

16) _____

Write the fraction in simplest form.

- 17) $\frac{18}{30}$

17) _____

Find the prime factorization of the number.

- 18) 198

18) _____

- 19) 252

19) _____

Find the average of the list of numbers.

- 20) 65, 69, 66, 70, 97, 64, 66

20) _____

Perform the indicated operation and write the answer in simplest form.

21) Find the average of $\frac{2}{6}$, $\frac{3}{8}$, and $\frac{1}{4}$.

21) _____

Provide an appropriate response.

22) Write "three hundred seven thousand, eight hundred ninety-four" in standard form.

22) _____

Simplify.

23) $0 \div 13$

23) _____

24) $22 \div 0$

24) _____

25) $9073 \cdot 1000$

25) _____

Multiply.

26) 5.2×1000

26) _____

27) 4.4×0.01

27) _____

Divide.

28) $\frac{162}{10.0}$

28) _____

29) $0.07 \overline{)6.65}$

29) _____

Write the decimal as indicated.

30) Seven thousand and thirty-seven thousandths, in standard form

30) _____

31) 87.081, in words

31) _____

Round the decimal to the indicated place value.

32) 39.9029, nearest thousandth

32) _____

33) 9.956, nearest tenth

33) _____

Insert <, >, or = between the pair of numbers to form a true statement.

34) $\frac{13}{8}$ _____ 1.624

34) _____

35) 29.0707 _____ 29.7070

35) _____

Write the fraction as an equivalent fraction with the given denominator.

36) $\frac{11}{5} = \frac{\quad}{15}$

36) _____

Write the decimal as a fraction or mixed number in simplest form.

37) 0.664

37) _____

Write the ratio as a ratio of whole numbers using fractional notation. Write the fraction in simplest form.

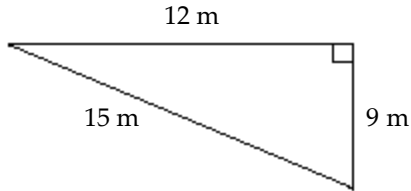
38) \$50 to \$110

38) _____

Find the ratio described as a fraction in simplest form.

39) Find the ratio of the longest side to the perimeter of the right triangle.

39) _____



Write the rate as a fraction in simplest form.

40) 330 miles in 42 hours

40) _____

41) 215 hours for 15 projects

41) _____

Write the rate as a unit rate.

42) 585 miles on 15 gallons of gas

42) _____

Find the unit price.

43) \$56.00 for 5 cassette tapes

43) _____

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

44) $\frac{x}{\frac{11}{7}} = \frac{2\frac{1}{3}}{1\frac{1}{10}}$

44) _____

45) $\frac{\frac{4}{3}}{\frac{20}{15}} = \frac{13}{n}$

45) _____

46) $\frac{3.7}{y} = \frac{1.2}{5.5}$

46) _____

Round to the nearest tenth.

Solve.

47) On an architect's blueprint, 1 inch corresponds to 6 feet. Find the length of a wall represented by a line $4\frac{1}{3}$ inches long on the blueprint. Round to the nearest tenth if necessary.

47) _____

48) A bag of fertilizer covers 500 square feet of lawn. Find how many bags of fertilizer should be purchased to cover a rectangular lawn 410 feet by 120 feet. 48) _____

Write the percent as a decimal.

49) 8.1% 49) _____

Solve.

50) Write the equivalent decimal and fraction for 0.3%. 50) _____

51) Write the equivalent decimal and fraction for $16\frac{2}{3}\%$. 51) _____

Write the decimal as a percent.

52) 0.5482 52) _____

Write the fraction or mixed number as a percent.

53) $\frac{7}{16}$ 53) _____

Solve.

54) Write the equivalent decimal and percent for $\frac{1}{3}$. 54) _____

Write the percent as a fraction or mixed number in simplest form.

55) 6.5% 55) _____

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

56) $\frac{7}{15} - \frac{1}{9}$ 56) _____

Perform the indicated operation. Write the answer as a mixed number in simplest form.

57) $2\frac{3}{5} \div 5\frac{3}{20}$ 57) _____

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

58) $1\frac{11}{15} + 5\frac{7}{10}$ 58) _____

59) 59) _____

$$\begin{array}{r} 17 \\ - 7\frac{7}{9} \\ \hline \end{array}$$

Translate to a proportion or an equation and solve. Round to the nearest hundredth, if necessary.

60) What number is 26% of 22? 60) _____

61) 75% of 60 is what number? 61) _____

62) What percent of 189 is 14.3? 62) _____

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

63) A company increased the number of its employees from 280 to 380. What was the percent increase in employees? 63) _____

64) Due to a lack of funding, the number of students enrolled at City College went from 7000 last year to 5000 this year. Find the percent decrease in enrollment. 64) _____

Solve.

65) The sales tax on the purchase of a car is \$3649.51. If the tax rate is 8.3%, find the purchase price of the car. 65) _____

66) A mirror has a purchase price of \$26. If the sales tax on this purchase is \$1.95, find the sales tax rate. 66) _____

67) A house sold for \$238,000 and the real estate agent earned a commission of \$9282. Find the commission rate. 67) _____

68) A house recently sold for \$516,360. The commission rate on the sale is 6.5%. If a real estate agent is to receive 80% of the commission, find the amount received by the agent. 68) _____

69) Find the original price when the discount rate is 65% and the amount of discount is \$409.50. 69) _____

70) A \$260.00 dress is on sale for 30% off. Find the discount and the sale price. 70) _____

71) Find the simple interest when: Principal = \$380, Rate = 4%, Time = 9 years. 71) _____

Convert as indicated.

72) 11 lb 11 oz to ounces 72) _____

Convert.

73) 48 oz to pounds 73) _____

74) 62 in. = _____ ft _____ in. 74) _____

Convert the measurement as indicated.

75) 66 ft to yards 75) _____

Answer Key

Testname: MATH_105_COMMON_FINAL_EXAM_REVIEW

- 1) 15
- 2) 2280
- 3) 11
- 4) $\frac{27}{32}$
- 5) $\frac{7}{3}$
- 6) 3.42
- 7) 28.22
- 8) 0.1681
- 9) 2, 4, 5, 10
- 10) 2, 3, 6
- 11) 936
- 12) 48
- 13) 14π mi, 43.96 mi
- 14) perimeter: 48 ft; area: 144 sq ft
- 15) perimeter: $1\frac{17}{117}$ ft; area: $\frac{2}{39}$ sq ft
- 16) equivalent
- 17) $\frac{3}{5}$
- 18) $2 \cdot 3^2 \cdot 11$
- 19) $2^2 \cdot 3^2 \cdot 7$
- 20) 71
- 21) $\frac{23}{72}$
- 22) 307,894
- 23) 0
- 24) undefined
- 25) 9,073,000
- 26) 5200
- 27) 0.044
- 28) 16.2
- 29) 95
- 30) 7000.037
- 31) Eighty-seven and eighty-one thousandths
- 32) 39.903
- 33) 10.0
- 34) >
- 35) <
- 36) $\frac{33}{15}$
- 37) $\frac{83}{125}$
- 38) $\frac{5}{11}$

Answer Key

Testname: MATH_105_COMMON_FINAL_EXAM_REVIEW

39) $\frac{5}{12}$

40) $\frac{55 \text{ mi}}{7 \text{ hr}}$

41) $\frac{43 \text{ hr}}{3 \text{ projects}}$

42) 39 mi/gal

43) \$11.20 per cassette tape

44) $\frac{10}{3}$

45) 13

46) 17.0

47) 26 ft

48) 99 bags

49) 0.081

50) 0.003; $\frac{3}{1000}$

51) $0.\overline{16}$; $\frac{1}{6}$

52) 54.82%

53) $43\frac{3}{4}\%$

54) $0.\overline{33}$; $33\frac{1}{3}\%$

55) $\frac{13}{200}$

56) $\frac{16}{45}$

57) $\frac{52}{103}$

58) $7\frac{13}{30}$

59) $9\frac{2}{9}$

60) 5.72

61) 45

62) 7.57%

63) 35.7%

64) 28.6%

65) \$43,970.00

66) 7.5%

67) 3.9%

68) \$26,850.72

69) \$630.00

70) Discount: \$78.00; sale price: \$182.00

71) \$136.80

72) 187 oz

Answer Key

Testname: MATH_105_COMMON_FINAL_EXAM_REVIEW

73) 3 lb

74) 5 ft 2 in.

75) 22 yd