Math 950 Final Exam Review

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) $\begin{array}{r} 56 \\ +\ 77 \\ \hline \end{array}$ 1) _____

A) 123 B) 134 C) 132 D) 133

2) $\begin{array}{r} 62 \\ -\ 16 \\ \hline \end{array}$ 2) _____

A) 42 B) 146 C) 78 D) 46

3) Fill in the digits for the given place values in the following whole number. 3) _____

8423
hundreds _
ones _

A) Hundreds 4, ones 2
B) Hundreds 2, ones 3
C) Hundreds 4, ones 3
D) Hundreds 8, ones 4

4) Write expanded notation. 4) _____

57,831

A) 57,831 ten thousands
B) 1 ten thousands + 3 thousands + 8 hundreds + 7 tens + 5 ones
C) 5 ten thousands + 7 thousands + 8 hundreds + 3 tens + 1 ones
D) 5 thousands + 7 hundreds + 8 tens + 31 ones

5) 399 + 52 + 3311 + 1 5) _____

A) 3613 B) 3778 C) 3763 D) 3748

6) $\begin{array}{r} 5995 \\ -\ 5412 \\ \hline \end{array}$ 6) _____

A) 5583 B) 559 C) 583 D) 579

7) During the last four months of a recent year, Annie's Natural Food Store reported the following sales. 7) _____

September	$2219
October	$3475
November	$2389
December	$2677

What were the total sales over this period?

A) $10,870 B) $10,770 C) $10,860 D) $10,760

8) An employee was paid $27,485 during the first half of last year. During the second half he was paid $43,191. How much more was his income during the second half? 8) _____

A) $70,576 B) $15,706 C) $70,676 D) $15,606

9) 9) _____

$$\begin{array}{r} 75 \\ \times\ 7 \\ \hline \end{array}$$

A) 625 B) 495 C) 525 D) 502

10) $6\overline{)2217}$ 10) _____

A) 369 R2 B) 369 C) 368 R9 D) 369 R3

11) $\frac{153}{0}$ 11) _____

A) 39 B) 153 C) 0 D) Not defined

12) 12) _____

$$\begin{array}{r} 274 \\ \times\ 7 \\ \hline \end{array}$$

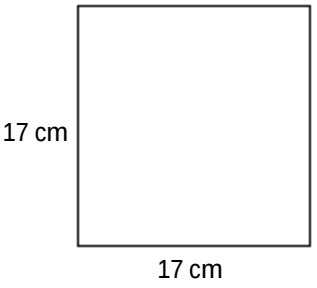
A) 1928 B) 1818 C) 2018 D) 1918

13) 13) _____

$$\begin{array}{r} 8800 \\ \times\ 600 \\ \hline \end{array}$$

A) 5,281,000 B) 5,279,501 C) 5,279,000 D) 5,280,000

14) Find the area of the region. 14) _____



A) 289 sq cm B) 68 sq cm C) 578 sq cm D) 284 sq cm

15) $12\overline{)912}$ 15) _____

A) 76 B) 77 R 2 C) 77 R 5 D) 76 R 4

16) Mark's typing speed is 71 words per minute. How many words can he type in 57 minutes? 16) _____

A) 128 words B) 4047 words C) 4057 words D) 3947 words

17) 387 chocolates are to be packed into boxes each of which will contain 11 chocolates. How many boxes of chocolates will there be? How many chocolates will be left over? 17) _____

A) 34 boxes; 3 chocolates left over B) 34 boxes; 2 chocolates left over

C) 35 boxes; 2 chocolates left over D) 35 boxes; no chocolates left over

18) Find the absolute value. 18) _____

$|-3|$

A) 1 B) -3 C) 3 D) 0

19) $-90 + (-69)$ 19) _____

A) 21 B) 159 C) -21 D) -159

20) $-8 + 20 + (-13)$ 20) _____

A) 15 B) 25 C) -1 D) 41

21) A corporation's bank account has $8218 in it when the treasurer writes checks for $2688, $4993, and $3982. Then deposits of $1493 and $3136 are made. How much is in the account? Is it overdrawn? 21) _____

A) $5166, no B) $15,252, no C) -$15,252, yes D) $1184, no

22) $-85 \div (-5)$ 22) _____

A) -17 B) 17 C) 7 D) $\frac{1}{17}$

23) $\frac{0}{-20}$ 23) _____

A) Undefined B) 0 C) 20 D) -20

24) Simplify. 24) _____

$5 \cdot (3 + 5)^2 - 4 \cdot (6 - 4)^2$

A) 304 B) 384 C) 1264 D) 1536

25) Simplify. 25) _____

$18 - \left| 6 - 15^2 \right|$

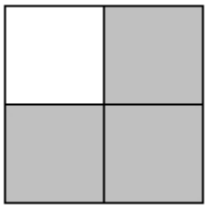
A) -201 B) 9 C) -213 D) 237

26) Simplify. 26) _____

$$\frac{106 - 6^2}{(-4)^2 - 3^2}$$

A) $\frac{82}{7}$ B) $-\frac{82}{7}$ C) - 10 D) 10

27) What part of the object or set of objects is shaded? 27) _____



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

28) Convert to an improper fraction. 28) _____

$5\frac{3}{8}$

A) $\frac{43}{3}$ B) $\frac{40}{3}$ C) $\frac{43}{8}$ D) $\frac{40}{8}$

29) Convert to a mixed number. 29) _____

$\frac{11}{3}$

A) $2\frac{2}{7}$ B) $3\frac{2}{3}$ C) $4\frac{2}{3}$ D) $\frac{2}{3}$

30) $\frac{3}{8} + \frac{5}{8}$ 30) _____

A) $\frac{8}{8}$ B) $\frac{1}{2}$ C) 1 D) $\frac{8}{16}$

31) $\frac{6}{21} - \frac{5}{21}$ 31) _____

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) $\frac{1}{7}$ D) $\frac{1}{21}$

32) Arrange the three fractions from smallest to largest. 32) _____

$\frac{1}{7}, \frac{3}{35}, \frac{7}{30}$

A) $\frac{3}{35}, \frac{7}{30}, \frac{1}{7}$ B) $\frac{1}{7}, \frac{3}{35}, \frac{7}{30}$ C) $\frac{1}{7}, \frac{7}{30}, \frac{3}{35}$ D) $\frac{3}{35}, \frac{1}{7}, \frac{7}{30}$

33) Find the least common multiple (LCM) of the given numbers. 33) _____

3, 15

A) 5 B) 45 C) 3 D) 15

34) $\frac{1}{4} + \frac{7}{20}$ 34) _____

A) 2 B) $\frac{1}{3}$ C) $\frac{2}{5}$ D) $\frac{3}{5}$

35) $15 - \frac{3}{5}$ 35) _____

A) $\frac{18}{5}$ B) - 18 C) $\frac{72}{5}$ D) $-\frac{9}{2}$

36) $-\frac{4}{7} \cdot 2$ 36) _____

A) $-\frac{6}{7}$ B) $-\frac{8}{14}$ C) $-\frac{8}{7}$ D) $-\frac{4}{14}$

37) Simplify by writing in lowest terms. 37) _____

$\frac{27}{9}$

A) $\frac{3}{9}$ B) 3 C) $\frac{1}{3}$ D) $\frac{6}{2}$

38) $\frac{14}{-10} \div \frac{7}{20}$ 38) _____

A) 2 B) 4 C) -4 D) $-\frac{49}{100}$

39) Find the greatest common factor (GCF) of the given numbers. 39) _____

30, 12

A) 5 B) 42 C) 3 D) 6

40) Write the number as a fraction. Do not simplify. 40) _____

0.48

A) $\frac{4.8}{10}$ B) $\frac{48}{10}$ C) $\frac{48}{1000}$ D) $\frac{48}{100}$

41) Write the fraction in decimal notation. 41) _____

$\frac{4}{10}$

A) 0.00004 B) 0.004 C) 0.04 D) 0.4

42) Which number is larger? 42) _____

0.66, 0.30

A) 0.30 B) 0.66

43) Round 1.876 to the nearest hundredth. 43) _____

A) 1.88 B) 1.89 C) 1.9 D) 1.87

44) 44) _____

$$\begin{array}{r} 236.971 \\ +\ \ 6.905 \\ \hline \end{array}$$

A) 243.875 B) 243.776 C) 243.876 D) 243.866

45) 45) _____

$$\begin{array}{r} 0.292 \\ \times\ \ 3.2 \\ \hline \end{array}$$

A) 0 B) 3.492 C) 3 D) 0.9344

46) $1.5 \div 0.06$ 46) _____

A) 26 B) 25 C) 14 D) 2.5

47) Supply the missing numbers. 47) _____

FRACTION NOTATION	DECIMAL NOTATION	PERCENT NOTATION
$\frac{5}{6}$		

A) $0.08\overline{3}$ $8.\overline{3}\%$ B) $0.8\overline{3}$ $83.\overline{3}\%$ C) $0.5\overline{6}$ $56.\overline{6}\%$ D) $0.\overline{83}$ $83.\overline{83}\%$

48) What is 50% of 7020? Round your answer to two decimal places if necessary. 48) _____

A) 35,100 B) 3510 C) 351,000 D) 351

49) 64 is 40% of what? Round to the nearest unit. 49) _____

A) 160 B) 26 C) 16 D) 1600

50) A lab technician has 820 mL of a solution of water and acid; 5% is acid. How many milliliters are acid? 50) _____

A) 41.0 mL B) 32.8 mL C) 24.6 mL D) 49.2 mL

51) A telephone costs $383. If the sales tax rate is 4%, how much tax is charged and what is the total price? Round your answers to the nearest cent. 51) _____

A) $15.32, $398.32 B) $11.49, $394.49

C) $153.20, $536.20 D) $19.15, $402.15

52) 7 ft = ___ in. 52) _____

A) 252 B) 28 C) 21 D) 84

53) 18.93 m = ___ mm 53) _____

A) 1893 B) 0.0189 C) 0.189 D) 18,930

54) Find the ratio of the first number to the second and simplify. 54) _____

55 to 60

A) $\frac{11}{60}$ B) $\frac{55}{12}$ C) $\frac{55}{60}$ D) $\frac{11}{12}$

55) Tuition at a certain college recently increased from $4000 to $7000. Find the simplified ratio of the increase in price to the original price. 55) _____

A) $\frac{3}{4}$ B) $\frac{3}{7}$ C) $\frac{4}{7}$ D) $\frac{4}{11}$

56) Tim's car will go 518 miles on 18.5 gallons of gasoline in city driving. What is the rate in miles per gallon? 56) _____

A) 28.5 mpg B) 27.5 mpg C) $\frac{1}{28}$ mpg D) 28 mpg

57) Find the unit price. 57) _____

The trim for a costume costs $35.75 for 5.5 yd.

A) $41.25/yd B) $15.50/yd C) $6.50/yd D) $30.25/yd

58) Solve. 58) _____

$\frac{5}{3} = \frac{5}{n}$

A) $\frac{5}{15}$ B) 15 C) 3 D) $8\frac{1}{3}$

59) Find the prime factorization of the number. 59) _____

183

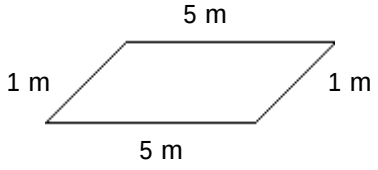
A) $3 \cdot 3$ B) $3 \cdot 59$ C) $3 \cdot 3 \cdot 61$ D) $3 \cdot 61$

60) Find the average. 60) _____

Scores on a math test: 72 53 72 95 53

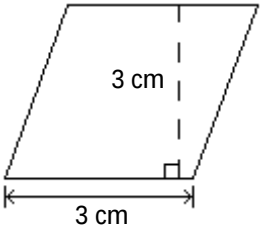
A) 53 B) 68 C) 69 D) 95

61) Find the perimeter of the figure. 61) _____



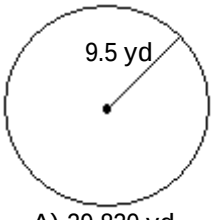
A) 6 m B) 12 m C) 11 m D) 7 m

62) Find the area of the figure. 62) _____



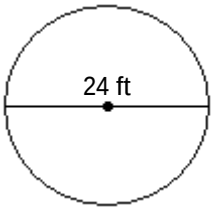
A) 4.5 cm^2 B) 9 cm^2 C) 6 cm^2 D) 12 cm^2

63) Find the circumference of the circle. Use 3.14 for π. 63) _____



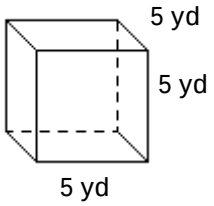
A) 29.830 yd B) 12.065 yd C) 59.66 yd D) 283.385 yd

64) Find the area of the circle. Use 3.14 for π. 64) _____



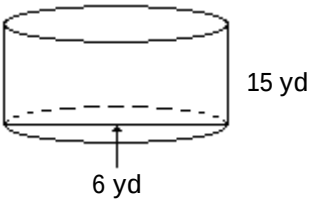
A) 452.16 ft^2 B) 1808.64 ft^2 C) 75.36 ft^2 D) 150.72 ft^2

65) Find the volume of the figure. 65) _____



A) 125 yd^3 B) 50 yd^3 C) 25 yd^3 D) 15 yd^3

66) Find the volume of the cylinder. Use 3.14 for π. 66) _____



A) 1695.6 yd^3 B) 282.6 yd^3 C) 141.3 yd^3 D) 423.9 yd^3

67) Simplify the expression.. 67) _____

9a - 3a + 6

A) 12a B) -6a + 6 C) 12a + 6 D) 6a + 6

68) Simplify the expression.. 68) _____

-11 - (4 - 12t)

A) -7 - 12t B) -15 + 12t C) 7 - 12t D) 15 + 12t

69) Simplify the expression.. 69) _____

-8y + 5 - 7 + 3 + y - 1

A) -9y + 1 B) -7y - 1 C) -7y D) -9y

70) Solve the equation.. 70) _____

5r + 4 = 29

A) {20} B) {1} C) {5} D) {24}

71) Solve the equation.. 71) _____

-8y + 10 = 7 + 7y

A) $\left\{-\frac{1}{17}\right\}$ B) $\left\{\frac{1}{5}\right\}$ C) $\{-5\}$ D) $\{5\}$

72) Solve the equation.. 72) _____

$\frac{1}{3}(9x - 15) = \frac{1}{2}(10x - 6)$

A) {-1} B) {1} C) $\left\{\frac{1}{15}\right\}$ D) {-15}

73) Solve the equation.. 73) _____

$0.25(80) + 0.4x = 0.3(80 + x)$

A) {20} B) {40} C) {30} D) {50}

74) Simplify the expression.. 74) _____

$4p^2 + 6p^3 - 6p^2 - 2p^3$

A) $2p^2$ B) $10p^2 - 8p^3$ C) $-2p^2 + 4p^3$ D) $2p^2p^3$

75) Dr. Taylor can see 7 patients in 2 hours. At this rate, how long would it take him to see 70 patients? 75) _____

A) 19 hours B) 245 hours C) 20 hours D) 14 hours

76) Mara can type 47 words per minute. How many words would she type in $\frac{3}{4}$ hour (45 minutes)? 76) _____

A) 2115 words B) 1586 words C) 63 words D) 35 words

77) On a map of the United States, the distance between Phoenix and Reno is 2.4 inches. The two cities are actually 768 miles apart. On this same map, what would be the distance between two cities that are 1344 miles apart? 77) _____

A) 4.5 inches B) 4.2 inches C) 4.1 inches D) 4.3 inches