Exam

Name_____

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

Write the number in expanded form.
1) 6070
    A) 6 ten thousands + 7 thousands   B) 6 thousands + 7 tens
    C) 6 hundreds + 7 ones   D) 607 thousands

1) _____

Provide an appropriate response.
2) Subtract 3971 from 7040.
    A) 4931   B) 3069   C) 5979   D) 4179

2) _____

Round to the indicated place.
3) The Missouri River is the second longest river in the United States. The Missouri River flows for about 2,317 miles. Round to the nearest ten miles.
    A) 2,317 miles   B) 2,310 miles   C) 3,300 miles   D) 2,320 miles

3) _____

Solve.
4) A travel agent arranged a payment plan for a client. It required a down payment of $150 and 6 monthly payments of $429. What was the total cost of the plan?
    A) $2624   B) $2674   C) $2574   D) $2724

4) _____

Solve the problem.
5) Insert parentheses, if needed, so that the expression on the left is equal to the number on the right.
$$24 - 12 \div 2^2 + 8 = 29$$
    A) $(24 - 12) \div (2^2 + 8)$ B) $24 - 12 \div (2^2 + 8)$
    C) $(24 - 12) \div 2^2 + 8$ D) No parentheses needed

5) _____

Round to the indicated place.
6) Mauna Loa, in Hawaii, is the largest volcano in the world. Its height above sea level is 13,677 feet. Round to the nearest thousand feet.
    A) 14,600 feet   B) 13,000 feet   C) 14,000 feet   D) 13,600 feet

6) _____

Write the number in standard form.
7) Six hundred thirty–eight thousand, nine hundred ninety–seven
    A) 638,997   B) 638,977   C) 638,000   D) 638,997,000

7) _____

Indicate whether the number is prime or composite.
8) 19
    A) Composite   B) Prime

8) _____

Combine and simplify.
9) $9\frac{2}{3} - 4\frac{2}{9} + 6\frac{1}{9}$
    A) $11\frac{1}{3}$ B) $11\frac{5}{9}$ C) $11\frac{5}{27}$ D) $-1\frac{5}{9}$

9) _____

Find the LCM.

10) 14 and 21

    A) 294   B) 42   C) 35   D) 21

10) _____

Subtract and simplify.

11) $13 - \dfrac{1}{6}$

    A) $13\dfrac{5}{6}$ B) 12   C) $10\dfrac{5}{6}$ D) $12\dfrac{5}{6}$

11) _____

Divide.

12) $\dfrac{9}{7} \div 3$

    A) $\dfrac{3}{7}$ B) 3   C) $\dfrac{7}{3}$ D) $\dfrac{27}{7}$

12) _____

Find all the factors of the number.

13) 28

    A) 1, 2, 7, 14, 28   B) 1, 2, 4, 7, 8, 14, 28

    C) 1, 2, 4, 7, 14, 28   D) 2, 7, 14, 28

13) _____

Compute, rounding to the nearest tenth.

14) 130 ÷ 10.0

    A) 13.0   B) 1.3   C) 130.0   D) 14.0

14) _____

Round as indicated.

15) $2,999.54 to the nearest dollar

    A) $3,000   B) $2,999.5   C) $3   D) $2,000

15) _____

Perform the indicated operations.

16) $\dfrac{11}{2} + \dfrac{7.62}{3}$

    A) 3.09   B) 8.04   C) 2.96   D) 30.9

16) _____

Change to the equivalent decimal.

17) $2\dfrac{3}{4}$

    A) 1.75   B) 2.75   C) 2   D) 3.667

17) _____

Divide.

18) 3.04 ÷ 4

    A) 7.6   B) 1.76   C) 17.6   D) 0.76

18) _____

Evaluate the expression.

19) 5y, if $y = \dfrac{5}{3}$

    A) $\dfrac{5}{2}$ B) 3   C) $\dfrac{25}{3}$ D) 25

19) _____

Solve the problem.

20) At the end of a woman's pregnancy, she had gained 20 pounds to weigh 167 pounds. Write an equation to describe the change in weight.

    A) w − 20 = 167   B) w + 167 = 20   C) 20 − w = 167   D) w + 20 = 167

20) _____

Evaluate the algebraic expression.

21) $\frac{m}{9}$, for $m = 5\frac{5}{8}$

    A) $\frac{4}{8}$ B) $\frac{5}{8}$ C) $\frac{6}{8}$ D) $\frac{5}{7}$

21) _____

Translate the expression into a word phrase.

22) x + 6

    A) x divided by six   B) Six less than x
    C) The product of x and six   D) Six more than x

22) _____

Solve. Simplify if possible.

23) At an advertising agency that employs 220 people, 101 employees receive 2 weeks of paid vacation each year. What is the ratio of those who receive 2 weeks of paid vacation to the total number of employees?

    A) $\frac{101}{220}$ B) $\frac{220}{119}$ C) $\frac{119}{220}$ D) $\frac{220}{101}$

23) _____

Indicate whether the statement is true or false.

24) $\frac{25}{30} = \frac{3}{5}$

    A) True   B) False

24) _____

Determine the unit rate.

25) 1325 people in 50 buses

    A) 265 people/bus   B) 1275 people/bus
    C) 0.038 person/bus   D) 26.5 people/bus

25) _____

Solve.

26) $\frac{3}{4} = \frac{12}{x}$

    A) $\frac{3}{48}$ B) 16   C) 48   D) 9

26) _____

27) What is 60% of 600 kilometers?

    A) 3600 km   B) 360 km   C) 36 km   D) 3.6 km

27) _____

Calculate the final balance after compounding the interest. Round to the nearest cent, if necessary.

28)

Principle	Interest Rate	Time (in years)	Final Balance
$400	6%	7	?

    A) Final Balance: $603.75   B) Final Balance: $611.85
    C) Final Balance: $601.45   D) Final Balance: $168.00

28) _____

Find the base. Round to the nearest hundredth unless otherwise indicated.

29) 70% of what number is 86?

    A) 122.86   B) 12.29   C) 60.2   D) 1228.6

29) _____

Simplify.

30) $\dfrac{-1}{9}$

    A) –9   B) $\dfrac{-1}{-9}$ C) $\dfrac{1}{9}$ D) $-\dfrac{1}{9}$

30) _____

Solve the problem.

31) Which is colder: a temperature of –17 degrees Fahrenheit or a temperature of –20 degrees Fahrenheit?

    A) –20 degrees Fahrenheit   B) –17 degrees Fahrenheit

31) _____

Perform the indicated operation or operations.

32) $-90 \div (-9)$

    A) –10   B) 10   C) 0   D) $\dfrac{1}{10}$

32) _____

Divide.

33) $\dfrac{7000}{50}$

    A) 3500   B) 350,000   C) 14,000   D) 140

33) _____

Complete the table.

34)

Input	Output
0	26 – 1 × **0** =
1	26 – 1 × **1** =
2	26 – 1 × **2** =

34) _____

A)

Input	Output
0	26 – 1 × **0** = 26
1	26 – 1 × **1** = 25
2	26 – 1 × **2** = 50

B)

Input	Output
0	26 – 1 × **0** = 26
1	26 – 1 × **1** = 25
2	26 – 1 × **2** = 24

C)

Input	Output
0	26 – 1 × **0** = 0
1	26 – 1 × **1** = 1
2	26 – 1 × **2** = 2

D)

Input	Output
0	26 – 1 × **0** = 0
1	26 – 1 × **1** = 25
2	26 – 1 × **2** = 50

Divide.

35) $2\frac{2}{5} \div 6$

35) _____

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

Add and simplify.

36) $\frac{6}{24} + \frac{9}{36} + \frac{14}{48}$

36) _____

    A) $\frac{29}{288}$ B) $\frac{7}{2}$ C) $\frac{19}{12}$ D) $\frac{19}{24}$

Find the sum.

37) 314.94 + 0.9995 + 32 + 4.93075 + 80.502

37) _____

    A) 433.47225   B) 432.37275   C) 433.37225   D) 433.37125

Change to the equivalent decimal. Round to the nearest hundredth.

38) $22\frac{14}{17}$

38) _____

    A) 23.21   B) 22.81   C) 22.82   D) 23.22

Evaluate the algebraic expression.

39) n – 4.9, for n = 4.9

39) _____

    A) 0   B) 9.8   C) –4.9   D) –9.8

Solve. Simplify if possible.

40) Tuition at a certain college recently increased from $5000 to $6000. Find the ratio of the increase in price to the original price.

40) _____

    A) $\frac{1}{6}$ B) $\frac{5}{6}$ C) $\frac{1}{5}$ D) $\frac{5}{11}$

Solve the problem.

41) Betsy purchased shares of a stock for $5.64 per share in 1964. Today the stock is worth $546.17 per share. Express to the nearest percent the ratio of what the stock is worth now to what the stock was worth when she purchased it.

41) _____

    A) 973%   B) 1%   C) 9684%   D) 97%

Perform the indicated operation or operations.

42) $\left(-\frac{2}{17}\right)\left(-\frac{2}{17}\right)$

42) _____

    A) $-\frac{2}{17}$ B) $\frac{2}{289}$ C) 1   D) $\frac{4}{289}$

Divide.

43) $\frac{800}{80}$

43) _____

    A) 10   B) 640   C) 64,000   D) 1000

Draw a diagram to represent the number.

44) $2\dfrac{1}{3}$　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　44) _____

　　A)　　　　　　　　　　　　　　　　　　　　B)

　　C)　　　　　　　　　　　　　　　　　　　　D)
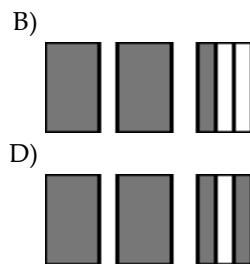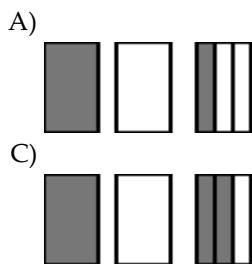
Solve the problem.

45) One software company bought another for about $11.81 billion. Express this amount in standard　　45) _____
form.
A) \$11,810,000,000,000.00　　　　　　　　B) \$1,181,000,000.00
C) \$11,810,000.00　　　　　　　　　　　　D) \$11,810,000,000.00

Translate the sentence into an equation, then solve.

46) The sum of 8 and x is the same as 13.　　　　　　　　　　　　　　　　46) _____
A) $8 + x = 13, x = -5$　　　　　　　　　　B) $8 + x = 13, x = 5$
C) $13 + x = 8, x = 5$　　　　　　　　　　　D) $x + 8 = 13, x = 21$

Write the ratio or rate in simplest form.

47) 28 revolutions in 12 seconds　　　　　　　　　　　　　　　　　　　47) _____
A) $\dfrac{4 \text{ revolutions}}{12 \text{ sec}}$　　B) $\dfrac{28 \text{ revolutions}}{4 \text{ sec}}$　　C) $\dfrac{7 \text{ revolutions}}{3 \text{ sec}}$　　D) $\dfrac{12 \text{ revolutions}}{28 \text{ sec}}$

Solve the problem.

48) At State University, 79% of the students are female. Express this percent as a decimal.　　48) _____
A) 0.0079　　　　　B) 0.079　　　　　C) 79　　　　　D) 0.79

Decide if the inequality is true or false.

49) $-2\dfrac{1}{3} < 0$　　　　　　　　　　　　　　　　　　　　　　　　49) _____

A) True　　　　　　　　　　　　B) False

Write the number in standard form.

50) $3^2 \cdot 10^3$　　　　　　　　　　　　　　　　　　　　　　　　　　50) _____
A) 9000　　　　　B) 729,000,000　　　　　C) 180　　　　　D) 1009