Worksheet-1 (Review of Integers)

MTH-05: Elementary Algebra

First Name: ....

Last Name: ....

1) Find the sum : -22 + 20 + (-19) + 15

 a) 4

 b) -4

 c) 6

 d) -6

2) Simplify: $\dfrac{6 - (-3)}{3 - 5(-3)}$

 a) $-\dfrac{9}{12}$

 b) $\dfrac{9}{15}$

 c) $-\dfrac{9}{6}$

 d) $\dfrac{1}{2}$

3) Simplify : (-5) (-3) - 5(2)

 a) -5

 b) 25

 c) -25

 d) 5

4) Simplify: $\dfrac{5(-2) - 4}{2}$

 a) -3

 b) 3

 c) -7

 d) 7

5) Which is the smaller : -2 or -10 ?

 a) -2

 b) -10

 c) They are equal

 d) Can not be determined

6) A new business had a profit of $7,000 in the first month, a loss of $1,500 in the second month and a loss of $8,550 in the third month. What is the net profit or net loss over the first three months ?

 a) Net loss of $3,050

 b) Net profit of $3,050

 c) Net profit of $17,050

 d) Net loss of $10,050

7) Which of the following statements is true ?

P: $(-2)(-4)(-6) = -48$ Q:
- $\dfrac{-48}{6} = 8$

a) P only

b) Q only

c) Both P and Q

d) Neither P nor Q

8) Multiply.

$2(-7)(5)(-3)(-4)$

a) 840

b) -84

c) -840

d) -74

9) Find the quotient.

$18 \div (-2)$

a) 8

b) 9

c) -9

d) -6

10) Identify the base and the exponent; then find the value.

3^2

a) base = 3, exponent = 3, value = 6

b) base = 9, exponent = 3, value = 3

c) base = 3, exponent = 2, value = 6

d) base = 3, exponent = 2, value = 9

11) Identify the base and the exponent; then find the value.

$(-7)^2$

a) base = -7, exponent = 2, value = -49

b) base = 7, exponent = 2, value = -49

c) base = -7, exponent = 2, value = 49

d) base = 7, exponent = 2, value = 49

12) After writing three checks for $524, $215 and $194, Peter Martinez has $554 left in his account. How much money was in the account originally?

a) 1487

b) $379

c) 1487$

d) $1487

13) To buy a used car, Walter Jones pays $200 down and the rest in 14 monthly payments. If the car costs him $2,188, what is his monthly payment?

a) $170

b) $157

c) $156

d) $142

14) Compute: $4 \times \frac{3}{20} =$

a) $\frac{3}{80}$

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

c) $\frac{7}{20}$

d) 15

15) Compute : $7\frac{2}{3} - 6\frac{1}{3} =$

a) $\frac{4}{3}$

b) $\frac{7}{3}$

c) $\frac{3}{2}$

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

16) Evaluate $\left(\frac{2}{3}\right)^2$.

a) $\frac{4}{9}$

b) $\frac{9}{4}$

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

d) $\frac{4}{3}$

17) Evaluate $\left(2\frac{2}{3}\right)^2$. Write the answer as mixed number.

a) $9\frac{1}{7}$

b) $7\frac{1}{9}$

c) $1\frac{7}{9}$

d) $4\frac{4}{9}$

18) Add the fractions and write the sum in lowest term.
$\frac{5}{8} + \frac{7}{8} + \left(-\frac{9}{8}\right) + \frac{3}{8}$

a) $\frac{24}{8}$

b) $\frac{7}{8}$

c) $\frac{3}{4}$

d) $\frac{20}{8}$

19) Add the following fractions :
$\frac{4}{5} + \frac{3}{10}$

a) $\frac{1}{10}$

b) $\frac{7}{15}$

c) $\frac{11}{10}$

d) $\frac{7}{10}$

20) The sum of 231.3 + 21.0201 + 32.6771 + 10.001 rounded to the nearest unit is

a) 295

b) 294.9982

c) 300

d) 294

21) Find the difference : 32.189 – 5.068

a) 23.21

b) 27.121

c) 27.1

d) 22.121

22) Add the following decimals : –7.5 + 9.75

a) 2.5

b) -9.14

c) 2.25

d) -2.25

23) Compute the indicated product: 82.37 × 3.5

a) 288.29

b) 288.295

c) 288.3

d) 228.005

24) Divide and round the quotient as indicated:
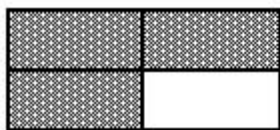6.475 ÷ (-0.03); to the nearest tenth.

a) 215.833

b) -215.833

c) -215.8

d) 215.8

25) What percent of the following figure is shaded ?

a) 75%

b) 4%

c) 25%

d) 3%

26) The bank pays 12% annual interest on a savings account of $15,000. If the money is left in the bank for one year, how much money will be in the account at the end of the year ?

a) $1,800

b) $16,500

c) $16,800

d) $15,150

27) What percent of 75 is 27 ?

a) 20.25%

b) 12%

c) 3.375

d) 36%

28) In a particular month, the total budget of a family was $5400. Out of this, $972 were allocated for outings. What percent of the total budget was allocated for outings ?

a) 44.28%

b) 10%

c) 50%

d) 18%

29) Mr. Smith earned $11,000 last year. His total deductions amounted to 24% of his earnings. What was his take-home salary.

a) $765

b) $15400

c) $7,955

d) $8,360

30) A real estate commission is computed at 5% on the first $50,000, 6% on amounts above $50,000 up to $100,000, 7% on the amount above $100,000. What is the commission on a 161,250 sale?

a) $250

b) $8799

c) $9787.50

d) $11287.50

31) Evaluate: $2 \times 3^2 - 4 \div 2 + 5$

a) 21

b) 23

c) 12

d) 10

32) Simplify: $8 + 2(1 - 2) + 2(7 + 3)$

a) 28

b) 120

c) 13

d) 26

33) Simplify: $15 + 3\{14 - (12 - 8)\}$

a) -3

b) 45

c) 17

d) 3

34) Evaluate: $15 - 28 \div (-4) \times 2$

a) 29

b) -29

c) $8\frac{2}{3}$

d) $-8\frac{2}{3}$

35) Emma had scores of 80%, 70%, 75%, and 85% on four tests. What was her average score for these tests ?

a) 81.02%

b) 75%

c) 76.4%

d) 77.5%

36) Seventeen less than x is:

a) 17 - x

b) 17 + x

c) x - 17

d) 17x

37) 4 more than three times x is:

a) (3 + 4)x

b) 3x + 4

c) 4x + 3

d) 4(3 + x)

38) Change the following statement to symbols. Seven less than three times some numer (n) equals 29.

a) 7n - 3 = 29

b) 3n - 7 = 29

c) 7 - 3n = 29

d) 7 - 3n = -29

39) Evaluate: 3x + 2y for x = -1, y = 2

a) 1

b) -1

c) 2

d) -2

40) Evaluate: (6x - 3y)(2x + 3y) for x = -3, y = -4

a) 108

b) 132

c) 227

d) 128

41) Evaluate: $\dfrac{3c - d}{2c + d}$ for c = 6, d = 2

a) $\dfrac{9}{8}$

b) $\dfrac{7}{8}$

c) $\dfrac{8}{9}$

d) $\dfrac{8}{7}$

42) Translate the following into algebraic expression :
Two times a number plus 5.

a) 2x + 5

b) 2x

c) (2x)(5)

d) 5

43) Translate the following statement into symbols.
Five is greater than eight divided by four.

a) $5 = 8 \div 4$

b) $(5)(8 \div 4)$

c) $5 < 8 \div 4$

d) $5 > 8 \div 4$

44) Find the numerical value of:

$(6x + 8)^2 - 3$ when x = 7

a) 2503

b) 2497

c) 103

d) 2597

45) Find the value of the expression for the given value of x.

$-4x^2 + 5x - 3$ for x = -3

a) 18

b) 24

c) - 54

d) 54

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Answer Keys

1) d)-6

2) d)$\frac{1}{2}$

3) d)5

4) c)-7

5) b)-10

6) a)Net loss of $3,050

7) c)Both P and Q

8) c)- 840

9) c)- 9

10) d)base = 3, exponent = 2, value = 9

11) c)base = - 7, exponent = 2, value = 49

12) d)$1487

13) d)$142

14) b)$\frac{3}{5}$

15) a)$\frac{4}{3}$

16) a)$\frac{4}{9}$

17) b)$7\frac{1}{9}$

18) c)$\frac{3}{4}$

19) c)$\frac{11}{10}$

20) a)295

21) b)27.121

22) c)2.25

23) b)288.295

24) c)-215.8

25) a)75%

26) c)$16,800

27) d)36%

28) d)18%

29) d)$8,360

30) c)$9787.50

31) a)21

32) d)26

33) b)45

34) a)29

35) d) 77.5%

36) c) x - 17

37) b) 3x + 4

38) b) 3n - 7 = 29

39) a) 1

40) a) 108

41) d) $\frac{8}{7}$

42) a) 2x + 5

43) d) 5 > 8 ÷ 4

44) b) 2497

45) c) - 54