Success Center Practice Sheet

Math 93 Review

1) Write in standard form: fifteen million, sixty-two thousand, three

2) **Round**
   a. 43956 to the nearest ten
   b. 57984 to the nearest ten
   c. 57984 to the nearest hundred
   d. 3.254 to the nearest tenth
   e. 4.296 to the nearest hundredth

3) **Evaluate**
   a. $241 - 98 + 63$
   b. $89 + (56 + 8) - (65 - 49)$
   c. $(312)(206)$
   d. $2568 \div 12$

4) **Evaluate**
   a. $15 - 2(3) - 9$
   b. $36 \div 2 \cdot 9$
   c. $3(4 + 5)^2$
   d. $16 + 3 \cdot 2^3$

5) Find the prime factorization of 1050.

6) Find the least common multiple (LCM) for:
   a. 3 and 5
   b. 12 and 45

7) Write $5\frac{2}{3}$ as an improper fraction.

8) Write $\frac{31}{8}$ as a mixed number.

9) **Multiply and simplify**
   a. $\frac{2}{5} \cdot \frac{4}{3}$
   b. $5 \cdot \frac{3}{25} \cdot \frac{10}{6}$
   c. $2\frac{3}{4} \cdot 4\frac{2}{3}$

10) **Divide and simplify**

    a. $\dfrac{3}{8} \div \dfrac{2}{5}$

    b. $2 \div \dfrac{1}{3}$

    c. $3\dfrac{1}{2} \div \dfrac{5}{6}$

11) **Add/Subtract and simplify**

    a. $\dfrac{5}{8} + \dfrac{3}{8}$

    b. $\dfrac{3}{10} + \dfrac{3}{4}$

    c. $3\dfrac{2}{5} + 8\dfrac{2}{3}$

    d. $6\dfrac{3}{5} - 4\dfrac{3}{4}$

12) **Evaluate**

    a. $2.75 + 4 + 0.3$

    b. $12.62 - 9.172$

    c. $(1.23)(2.5)$

    d. $2.16 \div 0.3$

13) **Evaluate**

    a. $\left(\dfrac{2}{3}\right)^2 \div \dfrac{4}{5} \cdot 3 - \dfrac{4}{3}$

    b. $\dfrac{3}{2} + \dfrac{1}{2} \cdot \dfrac{3}{5}$

    c. $\left(\dfrac{3}{8} - \dfrac{1}{8}\right)^2 + \dfrac{3}{16}$

    d. $\dfrac{1.6 + 0.2^2}{0.8}$

14) **Change to a decimal**

    a. $\dfrac{51}{1000}$

    b. $\dfrac{5}{8}$

    c. 21.5%

    d. 3.6%

15) **Change to a percent**

    a. 0.23

    b. 0.038

    c. 0.9

    d. $\dfrac{3}{8}$

16) **Change to a fraction and simplify**
   a. 0.152

   b. 26%

   c. $3\frac{1}{3}\%$

17) **Solve for n**
   a. $\dfrac{6}{n} = \dfrac{8}{12}$

   b. $\dfrac{2}{5} = \dfrac{n}{4}$

18) Thomas worked 8 hours and packed 90 cartons of books. At this rate, how many cartons can he pack in 12 hours?

19) **Solve**
   a. 15% of what number is 1.2?

   b. 30 is 5% of what number?

   c. 25% of 60 is what number?

   d. 16 is what percent of 50?

   e. 66 is what percent of 60?

20) One-third of Susan's weekly salary of $282 is spent on food. How much does she spend on food?

21) A $175 suit is on sale for 20% off. What is the sale price of the suit?

22) **Perform the following operations**
   a. $-6 + 10$

   b. $-3 - 5$

   c. $4 - (-7)$

   d. $(-3)(5)$

   e. $-3 + 2 - 4 - 5 + 8$

   f. $(-3)(-6)(-2)$

   g. $-4(-6 - 1)$

   h. $(-2)(8) + (-5)(-2)$

   i. $(-5)^2$

   j. $\dfrac{-12}{-4}$

23) **Solve for the variable**
   a. $5x + 8 = 23$

   b. $-2n - 12 = -4$

   c. $\dfrac{a}{3} = 10$

   d. $5y = 2y - 15$

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Answers

1) 15,062,003

2) a. 43,960
   b. 57,980
   c. 58,000
   d. 3.3
   e. 4.30

3) a. 206
   b. 137
   c. 64,272
   d. 214

4) a. 0
   b. 162
   c. 243
   d. 40

5) $2 \cdot 3 \cdot 5^2 \cdot 7$

6) a. 15
   b. 180

7) $\dfrac{17}{3}$

8) $3\dfrac{7}{8}$

9) a. $\dfrac{8}{15}$
   b. 1
   c. $\dfrac{77}{6}$ or $12\dfrac{5}{6}$

10) a. $\dfrac{15}{16}$
    b. 6
    c. $\dfrac{21}{5}$ or $4\dfrac{1}{5}$

11) a. 1
    b. $\dfrac{21}{20}$ or $1\dfrac{1}{20}$
    c. $12\dfrac{1}{15}$
    d. $1\dfrac{17}{20}$

12) a. 7.05
    b. 3.448
    c. 3.075
    d. 7.2

13) a. $\dfrac{1}{3}$
    b. $\dfrac{9}{5}$ or $1\dfrac{4}{5}$
    c. $\dfrac{1}{4}$
    d. 2.05

14) a. 0.051
    b. 0.625
    c. 0.215
    d. 0.036

15) a. 23%
    b. 3.8%
    c. 90%
    d. 37.5%

16) a. $\dfrac{19}{125}$
    b. $\dfrac{13}{50}$
    c. $\dfrac{1}{30}$

17) a. $n = 9$
    b. $n = \dfrac{8}{5}$ or $1\dfrac{3}{5}$

18) 135 cartons

19) a. 8
    b. 600
    c. 15
    d. 32%
    e. 110%

20) $94

21) $140

22) a. 4
    b. -8
    c. 11
    d. -15
    e. -2
    f. -36
    g. 28
    h. -6
    i. 25
    j. 3

23) a. $x = 3$
    b. $n = -4$
    c. $a = 30$
    d. $y = -5$