

Dear Algebra 1 Student,

Welcome to Algebra 1! I am excited to teach you this year. This is your first assignment for Algebra 1. **Please complete these problems and bring them with you on the first day of school.** Please read and follow the guidelines listed below:

- **All** work must be shown and it must be done neatly.
- You may use notebook paper if you wish. Copy the problem and then show all work.
- Any computation should be done out to the side of the problem.
- **YOU MAY NOT USE A CALCULATOR.**
- All answers should be written in the answer blanks.
- When solving problems with fractions, you are not allowed to convert them to decimals. Your work and answers must remain fractions. Reduce if possible.
- This will be your first grade for the year.

I look forward to meeting you!!!

Mrs. Denny

Name: \_\_\_\_\_

Period: \_\_\_\_\_

## SUMMER PREPARATION – ALGEBRA I

**A. Find the answer to each. Be sure and use PEMDAS. Reduce if necessary. Must show work!!**

1.  $\frac{4}{5} + \frac{2}{3}$

Ans: \_\_\_\_\_

2.  $\frac{1}{3} - \frac{1}{4} + \frac{1}{5}$

Ans: \_\_\_\_\_

3.  $\frac{-4}{15} \cdot \frac{5}{6}$

Ans: \_\_\_\_\_

4.  $\frac{9}{8} \div \frac{243}{72}$

Ans: \_\_\_\_\_

5.  $-3.06 - 5.8$

Ans: \_\_\_\_\_

6.  $0.12 - 5.04$

Ans: \_\_\_\_\_

7.  $(-2.33)(-0.005)$

Ans: \_\_\_\_\_

8.  $2\frac{1}{6} + \frac{9}{24} - \frac{2}{3}$

Ans: \_\_\_\_\_

9.  $\frac{1}{3} \div \frac{14}{15}$

Ans: \_\_\_\_\_

10.  $24 \div 0.004$

Ans: \_\_\_\_\_

11.  $1.24 - 6$

Ans: \_\_\_\_\_

12.  $2 \div \frac{1}{6}$

Ans: \_\_\_\_\_

$$13. -2\frac{5}{6} - 1\frac{1}{4}$$

$$14. \left(-2\frac{3}{8}\right)\left(2\frac{1}{2}\right)$$

$$15. (-8.1)(-8.6)(-5.2)$$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

$$16. \frac{1}{9} \div -1\frac{1}{3}$$

$$17. 1\frac{2}{7} + \left(-3\frac{4}{7}\right)$$

$$18. 1\frac{6}{7} \div 5\frac{3}{4}$$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

$$19. (-4)^2$$

$$20. 2^3$$

$$21. \left(\frac{2}{3}\right)^2$$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

$$22. 2[5 + (-13)]$$

$$23. 2(3^2 + 4 \div 2)$$

$$24. \frac{4 \div 2 + 10}{6}$$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

25.  $-(3 - 6 + 2 + 4)$

26.  $15 \div 3 \cdot \frac{1}{5}$

27.  $(-3)(6) + (-2)(4)$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

28.  $2^3 + 3^2$

29.  $\frac{27}{9} + \frac{40}{8} - \frac{72}{6}$

30.  $-[2(8 - 9)]$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

31.  $5(6.1)^2$

32.  $6 - 2(3.2)$

33.  $-4 - (1 - 5) - 9(-4)^2$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

34.  $((-16 - (-2 + 1)) \cdot 2) \div 5$

35.  $2 - 8 \div -2 - 3 - (-12) \div (-6) \cdot -2$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

**B. Substitute and evaluate the following expressions if** **$a = \frac{1}{3}, b = 12, c = 0, d = -3, e = \frac{1}{6}, f = -6, g = 1, h = -4$  Must show plug-ins & work!!**

36.  $ab$

37.  $be + ad$

38.  $abe$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

39.  $a + e$

40.  $abcd$

41.  $b \div c$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

42.  $-db$

43.  $c \div d$

44.  $ab \div e$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

45.  $b \div d \div e$

46.  $f(d \div 3 - f)$

47.  $f - d(b \div a)$

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

Ans: \_\_\_\_\_

48.  $-3 \div 3(g + h(f + 5) - (-6 + g))$

Ans: \_\_\_\_\_