



NORWICH FREE ACADEMY

To all students who have registered for the NFA Honors Algebra 1 (MAL005) class:

Congratulations on your decision to take the Honors Algebra 1 course next year. As you transition into the honors level course work in mathematics at NFA, the level of rigor will increase. This choice indicates to us that you are committed to excellence in and out of the classroom. Your selection also shows us that you exercise initiative and are able to work independently, and that you are willing to put in extra time, when necessary, to complete assignments that are more demanding than those of the typical high school mathematics class.

Honors Algebra 1 students are required complete a summer assignment. This packet is an independent review of the content in middle school mathematics curriculum that students taking the Honors Algebra 1 course should be able to complete successfully. It is our expectation that you will complete this assignment to the best of your ability with all work neatly shown out. Please complete all work on the packet and circle your final answers. If you need additional space, you may use a separate sheet of paper in addition to the packet. Your teacher will be collecting this assignment the first week that you return to school in the fall so please be prepared to hand it in. It will be graded based both on completion and accuracy.

Please contact Mrs. Justice, Head of the Mathematics Department, if you have any questions or concerns. You can reach Mrs. Justice through email at justicec@nfaschool.org.

Have a wonderful summer!

No Calculator Permitted.

Date _____

Evaluate each expression.

1) $(-3)(-2) - 2$

2) $-8 \div 2 - 5$

3) $16 \div (3 + 1^2)$

4) $(3 \div 3)^3 + 6 - 5$

5) $2^2 \div (6 - 2)$

6) $((-7)(3) + -4 + 1) \div (-5 + 1)$

Evaluate each using the values given.

7) $p - m + 6$; use $m = 6$, and $p = 4$

8) $z + x - x + y$; use $x = -5$, $y = 5$, and $z = 6$

9) $p - 6 + m - m \div 3$; use $m = 3$, and $p = 5$

10) $p - (p + m - 2)$; use $m = -2$, and $p = 1$

11) $(a - c)^2 - 3$; use $a = 3$, and $c = 6$

12) $x^2 + 2 - x - zx$; use $x = -4$, and $z = 5$

13) $j \div (h + j)$; use $h = -2$, and $j = \frac{2}{3}$

14) $(y - z) \div z$; use $y = -2$, and $z = \frac{4}{5}$

Simplify each expression.

15) $4r + 3 + 7r$

16) $3b - 3b$

17) $\frac{3}{2}x - \frac{7}{9}x$

18) $-6(8m - 7)$

19) $3(3 - r)$

20) $-5a + 10(a - 3)$

21) $-9(1 - 7n) + 4(5n + 9)$

22) $-6(x + 3) - 5(8 + 6x)$

Solve each equation.

23) $-11 = x - 5$

24) $\frac{1}{3} = \frac{n}{6}$

25) $\frac{19}{26}n = -\frac{19}{26}$

26) $-\frac{3}{4} = n + \frac{5}{4}$

27) $-8n + 3n = -20$

28) $-7 = 2n - 2 + 3n$

$$29) -6x - 4(1 - 7x) = -136$$

$$30) -120 = 6(1 + 3k)$$

$$31) -3(3 + 5b) = -9 - 3b$$

$$32) 4 - (x + 3) = 25 + 3x$$

$$33) -\frac{19}{12} + \frac{7}{3}a = a - \frac{7}{4} + \frac{5}{3}a$$

$$34) -2r - \frac{7}{2} = -\frac{29}{4} + \frac{1}{2}r$$

Solve each problem.

$$35) 95 \text{ is } 17\% \text{ of what?}$$

$$36) \text{ What percent of } 118 \text{ is } 82?$$

$$37) \text{ What is } 78\% \text{ of } 149?$$

$$38) 23 \text{ is what percent of } 56?$$

Solve each proportion. Write your answers in simplest form.

$$39) \frac{n}{3} = \frac{10}{5}$$

$$40) \frac{5}{8} = \frac{7}{v}$$

$$41) \frac{2}{4} = \frac{6}{a+4}$$

$$42) \frac{x+10}{7} = \frac{5}{2}$$

Evaluate each expression. Write your answers in simplest form.

$$43) \frac{6}{5} + \frac{1}{3}$$

$$44) -1 - \frac{3}{2} + \frac{5}{6}$$

$$45) \frac{2 + \frac{1}{2}}{\frac{2}{3}}$$

$$46) -\frac{1}{2} \cdot \frac{7}{4}$$

$$47) \frac{\frac{5}{3}}{\frac{2}{3}}$$

$$48) 2 + \frac{11}{8} + \frac{6}{5} - \frac{3}{2}$$