

Algebra 1 Honors

Extra Practice 1 Term 1

Name _____

Show all of your work on looseleaf in a **clear, organized** manner. I will not mark an answer correct unless it has the work to go along with it. Some problems should be followed up with a statement. For example, "The lengths of the 3 sides of the triangle are _____".

1) Solve. $3x - (x - 5) - 2 = x - 3 + 6$

2) Let $U = \{x | x \in \mathbb{Z}, -2 \leq x < 7\}$, $A = \{-1, 0, 2, 3\}$, and $B = \{-2, 0, 3, 5\}$

Find a) $A \cap B$ b) $(A \cup B)'$ c) $A \cap B'$

3) State all of the sets of numbers to which each belongs.

a) $\sqrt{20}$

b) $-\frac{5}{7}$

c) 10

4) Find the x- and y-intercepts on the graph of $y = -1/3 x - 5$.5) Given $l_2: 5y + 10 = -5$, $l_1 \perp l_2$. Write the equation of l_1 if it passes through (8, -10)

6) Simplify $\frac{2}{3}(x-1) - \frac{3}{4}(2x-2)$

7) What is 15% of 120?

8) Solve $\frac{3}{8}x + \frac{5}{4} = x - \frac{3}{2}$

9) Solve the equation for W. $2L + 2W = P$

10) Five times the smallest of three consecutive even integers is 10 more than twice the largest. Find the integers.

11) Solve $-\frac{3}{4}x - (4 - x) = 5 - \frac{1}{2}(2x - 3)$

12) Simplify $\frac{2 - 4(3 - 5)}{-4 - 5(2 - 3)^2}$

13) Write $2x - \frac{1}{3}y = 5$ in slope-intercept form. State the slope and the y-intercept.

14) Solve $\frac{1}{2}(x-4) - \frac{3}{4}(x+2) = \frac{1}{8}$

15) Given sets $A = \{x|x > -10\}$ and $B = \{x|x < -5\}$, graph $A \cap B$ and write the set in interval notation.

16) A car that sold for \$12,200 has a sales tax of \$767. How much does a car cost if its sales tax is \$637?

17) Solve $-\frac{3}{4}(3x+1) + 2(3-x) - x = \frac{1}{3}(x+4) - \frac{1}{6}(5-2x) + 1$

18) Solve $\frac{5x+1}{-7} = \frac{2-x}{3}$

19) The lengths of the three sides of a triangle are in a ratio of 3:5:6. The perimeter of the triangle is 28 cm.

20) A guidance counselor is planning schedules for her students. 13 students say they want to take French, 18 want Ceramics and 16 want Social Dance. Six say they want to take both French and Social Dance, and of these, 2 wanted to take Ceramics as well. Seven want only Social Dance, and 8 want only Ceramics. How many want only French?

Construct a Venn diagram to show your work.