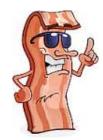
Review for Test #3 - Algebraic Linear Equations

Name: ______ Class: _____

- 1.) What is another way of saying that an equation has infinite solutions? _____
- 2.) What is another way of saying that an equation has no solution? ______
- 3.) Find three consecutive integers whose sum is -87.

4.) Find three consecutive even integers such that three times the sum of the first and the third is 24 more than two times the second.



Solve the following equations:

5.)
$$7x + 2 = 5x - 10$$

6.)
$$3p + 4 = 3(p + 1)$$

7.)
$$5h+3-2h+4=2h+9+h-2$$

8.)
$$\frac{x-6}{5} = 14$$

9.)
$$0.2(x+50)-6=0.4(3x+20)$$

$$10p - 2(3p - 6) = 4(3p - 6) - 8p$$
 10.)

11.)
$$-27 - 15 = -12h + 4h - 3 + 15 - h$$

12.)
$$\frac{3x}{4} + \frac{x}{3} = \frac{13}{6}$$



13.)
$$8 - 3y = 35$$

$$\frac{2}{3}(x-9) = -4(x-5)-12$$

14.)

15.)
$$1.2x + 37 = 4.2x - 8$$

$$\frac{3x-2}{8} + \frac{2-x}{4} = -\frac{1}{2}$$

16.)

17.) Matthew has a cousin who is five years older than he is. The sum of their ages is 31. How old is Matthew's cousin?

18.) Leah and Alexis went shopping and spent a total of \$32.50. Alexis spent \$9.50 more than Leah did. How much did they each spend?

For 19 - 22, isolate y.

19.)
$$y - 5 = 2x$$

20.)
$$3y = 9x - 12$$

21.)
$$x - y = 7$$

22.)
$$3x - 2y = 9$$

Answers:

- 1.) identity
- 3.) -30, -29, -28
- 5.) x = -6
- 7.) infinite solutions
- 9.) x = -2
- 11.) h = 6
- 13.) y = -9
- 15.) x = 15
- 17.) 18 yrs.
- 19.) y = 2x + 5
- 21.) y = x 7



- 4.) 4, 6, 8
- 6.) no solutions
- 8.) x = 76
- 10.) no solutions
- 12.) x = 2
- 14.) x = 3
- 16.) x = -6
- 18.) Leah: \$11.50; Alexis: \$21
- 20.) y = 3x 4
- $y = \frac{3}{2}x 4$

