

1-2-18

Aim: SWBAT review.

HW: Review Packet (due Thursday)

Equations Test Friday

Do Now: Review Packet

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

MATH 7A ~ UNIT 5. REVIEW: EQUATIONS

**TRUE or FALSE:** Determine whether the given value is a solution to the equation.  
Show your work!

- 1)  $7 - x = -4$ , if  $x = 11$       2)  $13 = -3x + 1$ , if  $x = -4$       3)  $-3(x - 4) = -21$ , if  $x = -3$

TRUE    FALSE                      TRUE    FALSE                      TRUE    FALSE

- 4) Colleen solved the equation  $-4x + 20 = -60$  and says the answer is  $x = 20$ . Do a formal, 3-step check, and decide if her answer is correct or incorrect.

Colleen's answer is: (circle one)      CORRECT    or    INCORRECT

Write each of the following as an equation. Do Not Solve!

- 5) Four less than a number "x" is twice the number increased by five. \_\_\_\_\_
- 6) Seven less than five times a number "g" is equal to triple the number decreased by seven. \_\_\_\_\_
- 7) Two more than twice a number "a" is four times the sum of the number and six. \_\_\_\_\_
- 8) The quotient of a number "x" and three subtracted from twenty-four is four times the difference of 12 and the number. \_\_\_\_\_

Solve each equation **ALGEBRAICALLY**.

- 9)  $\frac{2}{3}x = 16$                       10)  $-12 + x = 4$                       11)  $\frac{2x - 5}{3} = 5$

12)  $\frac{5}{6}x - \frac{4}{7} = \frac{11}{21}$

13)  $3x - 15 = -30$

14)  $\frac{3}{7}x - 12 = -27$

15)  $\frac{x}{-3} + 9 = 11$

16)  $-0.3(x - 5) = -9.9$

17)  $\frac{1}{4}(-16x + 32) = \frac{1}{2}(4x - 32)$

18)  $4(x - 6) = -16$

19)  $-1.2(x - 8) = 14.4$

20)  $-2(x + 3) = 16$

21)  $\frac{1}{5}(-10x + 25) = -1$

22)  $\frac{5}{9} + x = \frac{7}{12}$

23)  $0.2n - 7.2 = 9$

24)  $5x + 3x - 11 = 29$

25)  $6n + 3 + n = 5n - 7$

26)  $3x - 8 = 13 - 4x$

27)  $7(x + 2) = 3(5x + 2)$

Solve each equation ALGEBRAICALLY for the variable indicated.

28) Solve for  $w$ :

$$V = lwh$$

29) Solve for  $s$ :

$$\frac{r + s}{9} = y$$

30) Solve for  $x$ :

$$y + xb = 12$$

31) Solve for  $y$ :

$$2y + 3b = 6b$$

32) Solve for  $x$ :

$$8x - 20b = 4b + 4x$$

33) Solve for  $m$ :

$$y = mx + b$$

Solve each equation if possible. State whether the equation is an Identity or a Contradiction and EXPLAIN what that means in terms of the solution.

34)  $3x + 7 = 3(x + 2)$

35)  $2x + 9 = 2(x + 4) + 1$

Solve for ALL values of  $x$ . Show all work algebraically!

36)  $x^2 = 64$

37)  $3x^2 = 363$

38)  $x^2 - 15 = 66$

39)  $2x^2 + 7 = 57$

Solve each equation by clearing out the decimals.

40)  $0.5c + 3.49 - 2c = 4$

41)  $2.25 - 3z = 0.375 - 0.75z$

Solve each equation by clearing out the fractions.

42)  $6\frac{4}{5}n - \frac{8}{9} = \frac{7}{15}n$

43)  $\frac{3}{8} + \frac{9}{20}m = \frac{23}{20} + \frac{7}{8}m$

Define your variable(s), write an equation and solve each word problem. Write your final answer in a sentence.

- 44) Marvin made some candles that each weighed  $\frac{3}{4}$  pound. He shipped them in a box that weighed 3 pounds. The total weight of the box filled with candles was 12 pounds. How many candles did Marvin ship?

- 45) It costs \$2.50 to rent bowling shoes. Each game costs \$2.25. You have \$9.25. How many games can you bowl?



- 46) The sum of two consecutive even integers is 58. Find the integers.

- 47) Together two items cost \$130. One item costs \$8 more than the other. Find the cost of each item.



Define your variable(s), write an equation and solve each word problem. Write your final answer in a sentence.

48) Gary bought two video games at GameStop. One video game was \$3 less than twice the price of the other video game. If the total bill came to \$71.94, find the cost of each video game.

49) The sum of three consecutive odd integers is -135. Find the integers.

50) The larger of two numbers is 4 more than the smaller. If the larger is decreased by 9, the result is 21 less than 3 times the smaller. Find the numbers.