

Name: _____

Class: _____

M8-U3: Notes & HW #3 – Multi-Step Eqn Practice

Date: _____

Steps to Success:

1. Distribute to get rid of the parentheses
2. Combine like terms (if they are on the same side of the equal sign)
3. Get variables on one side of equal sign and #'s on the other
4. Inverse operations – undo addition/subtraction first
5. Inverse operations – undo multiplication/division last
6. Check your answer in the original equation

#1. $24 = -6(m+1)+18$

Ck:

#2. $7k - 8 + 2(k + 12) = 52$

Ck:

#3. $2x - 3 + 4x = 39$

Ck:

#4. $3(3a + 3) + 6 = 81$

Ck:

#5. $20 = -4(f + 6) + 14$

Ck:

#6. $9a - 4 + 3(a - 11) = 23$

Ck:

#7. You want to join the tennis team. You go to the sporting goods store with \$100. If the tennis racket you want costs \$80 and the tennis balls cost \$4 per can, how many cans of tennis balls can you buy?

#8. Johnny wants to ship a package to his friend. A shipping company charges \$2.49 for the first pound and \$1.24 for each additional pound. If it cost Johnny \$11.17 to ship the package, how much did his package weigh?

#9. $12y = 2y + 40$ Ck:

#10. $6(c + 4) = 4c - 18$ Ck:

#11. $14b = 16(b + 12)$ Ck:

#12. $7y = y - 42$ Ck:

#13. $9(d - 4) = 5d + 8$

Ck:

#14. $12j = 16(j - 8)$

Ck:

#15. $6(f + 5) = 2(f - 4)$

Ck:

For Questions 1–7, choose the verbal expression that matches the given algebraic expression.

1 $6n \div 4$

- A the product of four times a number and six
- B the product of six times a number and four
- C the quotient of six times a number and four
- D the quotient of four and six times a number

2 $\frac{2}{3}x - 9$

- F nine less than two-thirds of a number
- G nine more than two-thirds of a number
- H the product of two thirds of a number and negative nine
- J two thirds times the difference of a number and nine

3 $-7(a + 3)$

- A the product of negative seven and the difference of a number and three
- B the product of negative seven and the sum of a number and three
- C three more than the product of a number and negative seven
- D seven less than the sum of a number and three

4 $\frac{n + 15}{5}$

- F five less than the product of a number and fifteen
- G the quotient of fifteen and five, increased by a number
- H the product of a number and fifteen, divided by five
- J the sum of a number and fifteen, divided by five

- 5 The variable n represents the number of attendees at last week's soccer game.

$$2n + 30$$

- A two more than thirty times the number of attendees at last week's game
- B thirty fewer than twice the number of attendees at last week's game
- C the difference of twice the number of attendees at last week's game and thirty
- D thirty more than twice the number of attendees at last week's game

- 6 The variable s stands for the number of units in one side of a square.

$$4s - 4$$

- F the perimeter of the square increased by 4 units
- G the perimeter of the square decreased by 4 units
- H four times the perimeter of the square increased by 4 units
- J the product of 4 and the perimeter of the square

- 7 The variable d represents the number of dollars in a bank account.

$$\frac{1}{2}d - 10$$

- A ten dollars less than half the number of dollars in the account
- B one half the difference of the dollars in the account and ten dollars
- C one half the number of dollars in the account increased by ten dollars
- D the product of half the dollars in the account and negative ten dollars

- 8 Write an algebraic expression that stands for this phrase:

six years younger than twice Daniel's age

Answer _____

- 9 Represent this phrase algebraically:
two fewer than one-third of the school's vans are out of commission.

Answer _____