Math 8 Unit 5 Solving Equations Review   **Name:_____**

Solve:

1. 5x + 17 = 47

2. 4y + 1 = -15

3. 16 − z =12

4. $\dfrac{1}{2}t + 9 = 25$

5. $\dfrac{x+8}{4} = -10$

6. $\dfrac{a-4}{3} = 5$

7. 4c + 2c + 6 = 24

8. $\dfrac{2x}{5} - \dfrac{3}{5} = \dfrac{11}{5}$

9. 8 − 6g + 15 = 19

10. $\dfrac{t}{5} + \dfrac{t}{3} = \dfrac{8}{15}$

11. 5k + 9.3 = 21.8

12. 3x + 13 = x + 1

13. q + 7 = 2q + 5

14. 8n + 24 = 3n + 59

15. $9w - 2w + 8 = 4w + 38$

16. $\dfrac{5c}{4} = \dfrac{2c}{3} + 7$

Solve for _y_.

17. $y + 5x = 9$

18. $y - 7x = 1$

19. $2y - 8x = 12$

20. $\frac{1}{2}x + 2y = 8$

Simplify.

21. $7(8a - 4) + 2a$

22. $-9x - 7 + 3x + 4$

21. Holly earns $2 for each window she cleans. Write an equation to show the relationship between the number of windows she cleans, x, and the amount she earns y.

22. A car rental company charges $39.99 per day plus $0.20 per mile. Jill rented a car for one day and the charges were $47.39, before tax. Use *m* for number of miles. Write an equation. Find how many miles Jill drove.

23. On his last three math tests, Mark scored 85, 95, and 80. What grade must he get on his next test to have an average of 90 for all four tests? (Write an equation; then solve to find the answer.)