Unit: Expressions & Equations Test

Name _____

Date _____ Pd_____

EXPRESSIONS & EQUATIONS UNIT TEST

Solve the problems below. Be sure to show your thinking.

1. Solve.

$$50 = -2.5x$$

x = _____

2. Simplify.

$$18m - 9v + 6v - 7m$$

_____

3. Factor.

$$24a + 12b - 30$$

_____

4. Solve.

$$16t - 2(2t + 5) = 14$$

t = _____

5. Mark's brother is five years older than Mark. Their combined ages add up to 23. How old is Mark?

_____

6. Five sisters each bought matching scarves and two pairs of socks. The scarves were priced at $12.00. If the total bill for all 5 sisters was $125.00, what was the price of one pair of socks?

_____

7. A home improvement store advertises 60 square feet of flooring for $287.00 including an $80.00 installation fee. Write an equation to represent the cost of one square foot of flooring.

_____

8. Simplify.

$$1.8y - 9.3y - 6.3y$$

_____

9. Solve.

$$\frac{x}{8} + 6 = 32$$

x = _____

10. Solve.

$$-3x - 10 = 32$$

x = _____

Solve the problems below. Be sure to show your thinking.

11. Simplify.

$$\frac{1}{2}(12k-6)$$

_____

12. Simplify.

$$-6r-5s+6r+7s$$

_____

13. Solve.

$$x-9.5=-10.5$$

x = _____

14. Solve.

$$\frac{1}{3}(9x+12)=15$$

x = _____

15. A plumber charges $55 for a service call plus $35 per hour. If the plumber's bill was $160, how many hours was he there?

_____

16. The perimeter of an equilateral triangle is 63 inches. If the length of each side is (4x-3), find the value of x.

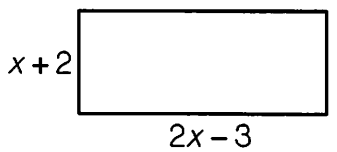
_____

17. Solve.

$$-(18+4x)=8$$

x = _____

18. Write an expression to represent the perimeter of the figure below.



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19. Solve.

$$-3x+8=11$$

x = _____

20. Solve.

$$2(2.5x+8)=26$$

x = _____