

NAME: _____

P.I. A.A.22: Solve all types of linear equations in one variable

Solve:

1. $-2x + 15 + 4x + 15 = -6$

[A] -12 [B] 12 [C] 18 [D] -18

2. $-9x + 21 + 11x + 21 = 2$

[A] -22 [B] -20 [C] 20 [D] 22

3. $5n + 26 - 3n = 54$

4. $6x - 5 = x + 3$

[A] $\frac{1}{6}$ [B] $-\frac{8}{5}$ [C] $\frac{5}{8}$ [D] $\frac{8}{5}$

5. $6x + 1 = x - 5$

[A] $-\frac{6}{5}$ [B] $\frac{6}{5}$ [C] $\frac{7}{6}$ [D] $-\frac{5}{6}$

6. $4x + 4 = x - 3$

[A] 2 [B] $\frac{7}{3}$ [C] $-\frac{7}{3}$ [D] $-\frac{3}{7}$

7. $x + 2 = -2x - 8$

8. $x - 8 = -3x + 5$

9. $x + 5 = -5x - 5$

10. $x + 1 = -x + 9$

11. $x - 1 = -2x + 2$

12. $x - 2 = -5x + 1$

NAME: _____

Solve:

13. $x + 4 = -4x + 9$

14. $x - 3 = -4x - 7$

15. Compare the quantity in Column A with the quantity in Column B.

<u>Column A</u>	<u>Column B</u>
the solution of	the solution of

$2(x - 3) = 6x$	$3x + 2 = 5x + 6$
-----------------	-------------------

- [A] The quantity in Column A is greater.
[B] The quantity in Column B is greater.
[C] The quantities are equal.
[D] The relationship cannot be determined on the basis of the information supplied.

16. Write the equation $3t - 2 = 5t + 6$ in calculator-ready form and solve.

Solve:

17. $6x + 10 = x + 5(3 + x)$

18. $4x + 9 = x + 3(3 + x)$

19. Which equation has no solution?

[A] $6x + 25 = x + 5(5 + x)$

[B] $4y + 3 = 9y - 5y$

[C] $-x + 3 = 5x + 3 - 6x$

[D] $4y + 3 = 9y - 5y + 3$

20. Which equation has no solution?

[A] $9y + 9 = 11y - 2y + 9$

[B] $7x + 30 = x + 6(5 + x)$

[C] $-5x + 9 = 2x + 9 - 7x$

[D] $7x - 6 = x + 6(5 + x)$

[1] D

[2] B

[3] $n = 14$

[4] D

[5] A

[6] C

[7] $-\frac{10}{3}$

[8] $\frac{13}{4}$

[9] $-\frac{5}{3}$

[10] 4

[11] 1

[12] $\frac{1}{2}$

[13] 1

[14] $-\frac{4}{5}$

[15] A

[16] $t = (-2 - 6) / 2; t = -4$

[17] no solution

[18] identity

[19] B

[20] D