

NAME:

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Int 2**HW 1-6**


Multi-Step Equations & Inequalities - Special Cases

Unit 1

Solve each equation or inequality. Show your work. Graph the solution set for inequalities.

1. $2n + n + 3(n + 4) = 24$

$$n = 2$$

8. $11n + 26 > 13n$ 

2. $18 - n = 8n$


9. $7d = -42 + d$

$$d = -7$$

3. $38 = 3(x + 2) + 5x$

$$x = 4$$

10. $10n - 22 = 6n - 14$

4. $5 - m < m + 9$ 

11. $4(x + 4) = 4x - 12$

NO SOLUTION

5. $4m + 2(m + 2) = -8$

$$m = -2$$

12. $3x + 1 = 4x + 1$

6. $3(x - 4) = 3x - 12$

13. $3(a + 4) - 8 = 4a - 5$

$$a = 9$$

7. $4n + 2(n + 10) = 62$

$$n = 7$$

14. $6y - 17 = -9 + 8y$

15. $-2(x+4)-9=-2x-17$

∞ many

20. $10p-2(3p-6)=4(3p-6)-8p$

16. $5(x+4)+3x \geq 4x+8$

21. $12(x+3)=4(2x+9)+4x$

∞ many

17. $\frac{1}{2}r+2\left(\frac{3}{4}r-1\right)=\frac{1}{4}r+6$

22. $0.2(x+50)-6=0.4(3x+20)$

$r = \frac{32}{7}$ or $4\frac{4}{7}$ or 4.57

23. Is $m = -22$ the solution for
 $7 - 2(m + 4) = 3m - 16$

18. $-5(3m+6) = -3(4m-2)$

NO

24. Is $r = 13$ the solution for
 $4(3r - 4) = 2(7r + 5)$

19. $-7(k+9) = 9(k-5) - 14k$

$k = -9$

25. Is $x = \frac{5}{4}$ the solution for
 $3x + 7 = 17 - 5x$

Yes