ILLAWARRA TUTORING

In this worksheet you will develop techniques to solve both linear and non-linear equations using clear, step-by-step methods.

Easy Questions

1. Solve for x in $x + 3 = 7$.
2. Solve for x in $2x = 10$.
3. Solve for x in $5 - x = 2$.
4. Solve for x in $3(x - 1) = 6$.
5. Solve for x in $\frac{x}{2} = 3$.

Intermediate Questions

6. Solve for x in $2(x + 3) = 3x + 2$.
7. Solve for x in $4(x - 2) + 3 = 2(x + 5)$.
8. Solve for x in $3(x + 4) - 2(x - 1) = 2x + 10$.
9. Solve for x in $0.5x + 1.5 = 3$.
10. Solve for x in $7 + 2x = 3x - 4$.
11. Solve for x in $5(x - 2) = 3(x + 4)$.
12. Solve for x in $2(2x + 3) = x + 9$.
13. Solve for x in $3x + 4 = 2(x + 7)$.
14. Solve for x in $6 - 2(x - 1) = 10$.
15. Solve for x in $8x = 4(x + 3)$.
16. Solve for x in $\frac{x + 4}{2} = 3$.
17. Solve for x in $3(x - 2) + 2 = x + 4$.
18. Solve for x in $4x - 5 + 2x = 3(x + 1) + x - 7$.
19. Solve for x in $2(x + 3) - 3(x - 2) = x$.
20. Solve for x in $5 + \frac{x}{2} = 3$.

Hard Questions

21. Solve for x in $\dfrac{2x+3}{5} + \dfrac{x-2}{3} = 2$.

22. Solve for x in $\dfrac{1}{x+1} + \dfrac{2}{x-1} = \dfrac{3}{x^2-1}$.

23. Solve for x in $\dfrac{x+2}{x-1} = 3$.

24. Solve for x in $\dfrac{3x-2}{4} = \dfrac{2x+5}{3}$.

25. Solve for x in $\dfrac{5}{x+2} + 1 = \dfrac{x+1}{x+2}$.

26. Solve for x in $\dfrac{2}{x-1} + \dfrac{3}{x+2} = 1$.

27. Solve for x in $\dfrac{x+3}{2} - \dfrac{x-1}{4} = 2$.

28. Solve for x in $\dfrac{x+1}{3} + \dfrac{x-2}{6} = 1$.

29. Solve for x in $\dfrac{2x}{x+3} = \dfrac{4}{x+3}$.

30. Solve for x in $\dfrac{1}{2x} = \dfrac{3}{4x+2}$.