Linear Equations

Solve the following equations.

1. \[ t = 2 - 2[2t - 3(1 - t)] \]

2. \[ 7 + \frac{4x}{9} = \frac{x}{2} \]

3. \[ \frac{x}{2} + \frac{x}{3} = 7 \]

4. \[ 9(3 - x) = \frac{3}{4}(x - 3) \]

5. \[ \frac{x}{5} + \frac{2(x - 4)}{10} = 7 \]

6. \[ \frac{3}{2}(4x - 3) = 2[x - (4x - 3)] \]

7. \[ \frac{-4}{x-1} = \frac{7}{2-x} + \frac{3}{x+1} \]
Equations Leading to Linear Equations

(Rational Equations and Radical Equations)

Solve the following equations

1. \( \frac{4p}{7-p} = 1 \)

2. \( \frac{1}{x} + \frac{1}{5} = \frac{4}{5} \)

3. \( \frac{x+2}{x-1} + \frac{x+1}{3-x} = 0 \)

4. \( \frac{x}{x+3} - \frac{x}{x-3} = \frac{3x-4}{x^2-9} \)

5. \( \frac{9}{x-3} = \frac{3x}{x-3} \)

6. \( \frac{7}{3-x} = 0 \)

7. \( 6 - \sqrt{2x+5} = 0 \)

8. \( \sqrt{5+2x} = \sqrt{4x-2} \)

9. \( \sqrt{\frac{x}{2}} + 1 = \frac{2}{3} \)

10. \( \sqrt{\frac{1}{w}} - \frac{2}{\sqrt{5w-2}} = 0 \)