

Algebra 2B  
Rational and Radical Equations

Name \_\_\_\_\_

Solve for  $x$ :

1.  $\frac{4}{x+1} + 3 = 4$

2.  $\frac{3}{2x} \cdot \frac{4x}{2x+5} = \frac{3}{4}$

3.  $\sqrt{11-2x} + 3 = 1 - x$

4.  $\frac{x^2+7x-8}{3x} \cdot \frac{3}{4x-4} = \frac{5}{12}$

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

6.  $\frac{6}{x+1} \cdot \frac{2x+2}{x} = 4$

7.  $\sqrt{x-6} + 9 = x - 9$

8.  $\frac{x+7}{8} \cdot \frac{2}{x^2+4x-21} = -\frac{1}{8}$

$$9. \frac{x+2}{3} + \frac{x-1}{4} = 8$$

$$10. \sqrt{8x+3} = 2x$$

$$11. \frac{12}{x} + \frac{10}{x-3} = 3$$

$$12. \frac{x^2-2x-15}{x+6} \cdot \frac{2x+12}{x^2-25} = 3$$

$$13. x = \sqrt{x+1}$$

$$14. x-1 = \frac{1}{x}$$

$$15. \frac{x^2-3x-10}{x^2+9x+18} \cdot \frac{x^2+8x+7}{x^2-11x+30} = -2.5$$

$$16. \frac{7}{x} + \frac{4}{x+3} = \frac{1}{2}$$