

5-4 Worksheet

Solve each rational equation. Check for extraneous solutions. Show your work!

$$1. \frac{12}{x} + \frac{3}{4} = \frac{3}{2}$$

$$2. x + 5 = \frac{6}{x}$$

$$3. \frac{x}{x-2} = \frac{2}{5}$$

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

$$5. \frac{4}{x-2} = \frac{-1}{x+3}$$

$$6. \frac{1}{2x} + \frac{5}{x} = \frac{3}{x-1}$$

$$7. \frac{x}{x+2} + x = \frac{5x+8}{x+2}$$

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

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

$$10. \frac{4x}{x-1} - \frac{5x}{x-2} = \frac{2}{x^2-3x+2}$$

$$11. \frac{x}{x+4} + \frac{4}{x-4} = \frac{x^2+16}{x^2-16}$$

$$12. x + \frac{x}{x-2} = \frac{2}{x-2}$$

$$13. \frac{1}{x-2} = \frac{2x+1}{x^2+2x-8} + \frac{2}{x+4}$$

$$14. \frac{1}{x+4} = \frac{2}{x^2+3x-4} - \frac{1}{1-x}$$

$$15. 5 - \frac{3x+2}{x-1} = \frac{2x-4}{x+2}$$