

Solving Rational Equations - Practice Worksheet

Name: _____ Date: _____

Instructions: Solve each rational equation for x. Show all steps, state any restrictions on x, and check your answers for extraneous solutions.

1. $x/3 + 2 = 5$

.....

2. $4/x = 2$

.....

3. $x/4 - x/8 = 3$

.....

4. $3/(x+1) = 1$

.....

5. $2/x + 1/3 = 5/6$

.....

6. $(x+2)/(x-1) = 3$

.....

7. $5/(x-2) - 1/(x+2) = 8/(x^2-4)$

.....

8. $2/(x+3) + 3/(x-3) = 12/(x^2-9)$

.....

9. $x/(x-2) - 2/(x+1) = (3x-2)/((x-2)(x+1))$

.....

10. $3/(x^2-4) + 1/(x-2) = 2/(x+2)$

.....

Answer Key

1. $x = 9$

2. $x = 2$

3. $x = 24$

4. $x = 2$

5. $x = 4$

6. $x = 5/2$

7. $x = 3$

8. $x = 3$ is extraneous; no solution

9. $x = 0$

10. $x = -1$