

## Solving Rational Equations

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Solve the equation:  $\frac{3}{2x-1} = \frac{1}{3x-5}$

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

3. Solve the equation:  $\frac{1}{x-1} = \frac{2}{3}$

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

5. Solve:  $\frac{2(x-7)}{x^2+3x-28} + \frac{x-2}{x-4} = \frac{x+3}{x+7}$

6. Solve:  $\frac{2}{x^2-1} + \frac{1}{1-x} = 0$

7. Solve:  $\frac{2x}{2x+1} + \frac{1}{3x} = 1$

8. Solve for  $a$ :  $\frac{3}{2a-1} + 2 = \frac{9}{2a-1}$

9. The total resistance,  $R_T$ , for a parallel circuit with two bulbs,  $R_1$  and  $R_2$ , is given by the equation:

$$\frac{1}{R_T} = \frac{1}{R_1} + \frac{1}{R_2}$$

Find the total resistance if  $R_1 = 7$  ohms and  $R_2 = 3$  ohms.

- A.  $\frac{1}{10}$  ohm                      B.  $\frac{21}{10}$  ohm  
C.  $\frac{10}{21}$  ohms                      D. 10 ohms

10. The total resistance,  $R_T$ , for a parallel circuit with two bulbs,  $R_1$  and  $R_2$ , is given by the equation:

$$\frac{1}{R_T} = \frac{1}{R_1} + \frac{1}{R_2}$$

Find the total resistance if  $R_1 = 6$  ohms and  $R_2 = 4$  ohms.

- A.  $\frac{1}{10}$  ohm                      B.  $\frac{5}{12}$  ohm  
C.  $\frac{12}{5}$  ohms                      D. 10 ohms

Solving Rational Equations      12/01/2015

- |            |                |
|------------|----------------|
| 1.         |                |
| Answer:    | 2              |
| Objective: | A.REI.2        |
| 2.         |                |
| Answer:    | $2\frac{2}{3}$ |
| Objective: | A.REI.2        |
| 3.         |                |
| Answer:    | $2\frac{1}{2}$ |
| Objective: | A.REI.2        |
| 4.         |                |
| Answer:    | 5              |
| Objective: | A.REI.2        |
| 5.         |                |
| Answer:    | 2              |
| Objective: | A.REI.2        |
| 6.         |                |
| Answer:    | $\emptyset$    |
| Objective: | A.REI.2        |
| 7.         |                |
| Answer:    | 1              |
| Objective: | A.REI.2        |
| 8.         |                |
| Answer:    | 2              |
| Objective: | A.REI.2        |
| 9.         |                |
| Answer:    | B              |
| Objective: | A.REI.2        |
| 10.        |                |
| Answer:    | C              |
| Objective: | A.REI.2        |