PRACTICE 12.6 Solving Rational Equations

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

2.
$$4 - \frac{3}{y} = \frac{5}{y}$$

3.
$$\frac{2}{3n} + \frac{3}{4} = \frac{2}{3}$$

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

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

6.
$$\frac{4}{n} + \frac{5}{9} = 1$$

7.
$$\frac{4}{y+3} = \frac{6}{y-3}$$

8.
$$\frac{1}{5} - \frac{1}{x} = \frac{1}{2}$$

9. Chao, who is an experienced architect, can draw a certain set of plans in 6 hours. It takes Carl, who is a new architect, 10 hours to draw the same set of plans. How long would it take them working together to draw the set of plans?

10. Suppose you can clean your kitchen in 30 minutes. Your friend can clean your kitchen in 45 minutes. How long will it take you to clean the kitchen together?

11. The Ryan Publishing Company has two printing presses. It takes the new printing press 45 minutes to print 10,000 fliers. Together the two presses can print the 10,000 fliers in 30 minutes. How long does it take the older printing press by itself to print the 10.000 fliers?