

Solving Equations with Fractions

find the common denominator: $\frac{1}{x} = \frac{1}{2} + \frac{1}{3}$

$$\frac{1}{x} = \frac{1 \times 3}{2 \times 3} + \frac{1 \times 2}{3 \times 2}$$

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

cross multiply: $\frac{1}{x} = \frac{5}{6}$

$$5 \times x = 1 \times 6$$

$$5x = 6$$

divide each side by 5: $x = \frac{6}{5}$

a) $\frac{1}{x} = \frac{1}{6} + \frac{1}{3}$

b) $\frac{1}{x} = \frac{1}{3} + \frac{1}{4}$