

Exercise 30

Arithmetic Operations Perform the indicated operations.

$$(a) \quad \frac{2}{3} - \frac{3}{5}$$

$$(b) \quad 1 + \frac{5}{8} - \frac{1}{6}$$

Solution

Part (a)

$$\frac{2}{3} - \frac{3}{5}$$

Each fraction can be multiplied by 1 without changing anything.

$$\frac{2}{3} \times \frac{5}{5} - \frac{3}{5} \times \frac{3}{3}$$

$$\frac{10}{15} - \frac{9}{15}$$

Now that the fractions have the same denominator, they can be subtracted.

$$\frac{10 - 9}{15}$$

$$\frac{1}{15}$$

Part (b)

$$1 + \frac{5}{8} - \frac{1}{6}$$

Each fraction can be multiplied by 1 without changing anything.

$$1 \times \frac{24}{24} + \frac{5}{8} \times \frac{3}{3} - \frac{1}{6} \times \frac{4}{4}$$

$$\frac{24}{24} + \frac{15}{24} - \frac{4}{24}$$

Now that the fractions have the same denominator, they can be added.

$$\frac{24 + 15 - 4}{24}$$

$$\frac{35}{24}$$