

Fundamental Algebra

1. Simplify the following expression.

(a) $(ef + 3ac - 7kl) - (ef - 5ac - 4kl)$

(b) $(5.7a - 8.9b) - (-8.6a + 4.2b - 1)$

(c) $\left(2p - \frac{1}{3} + 4q\right) - \left(3p - 6q - \frac{1}{3}\right)$

(d) $12x^2y + 24x^2 - 7x^2$

(e) $6b + \frac{4}{5}bc - 3\frac{1}{4}ab + \frac{1}{5}cb$

2. Express the following as a single fraction in its simplest form.

(a) $\frac{4x - 3y}{8} - \frac{4x - 5y}{3} + \frac{x + 3y}{4}$

(b) $\frac{4x + y}{3} - \frac{y - 2}{4} - \frac{3x - 5}{5}$

(c) $\frac{3 - 8x}{4} - \frac{4x - 1}{6} + 1$

Answer Key
 1. (a) $8ac - 3kl$
 (b) $14.3a - 13.1b + 1$
 (c) $-p + 10q$
 (d) $12x^2y + 17x^2$
 (e) $6b - \frac{4}{13}ab + bc$

2. (a) $\frac{49y - 14x}{24}$
 (b) $\frac{44x + 5y + 90}{60}$
 (c) $\frac{23 - 32x}{12}$