Practice Exercises

Perform the indicated operation.

1. $\dfrac{6}{2a-6}+\dfrac{4}{2a-6}$

2. $\dfrac{x^2+3x-2}{x^2-4}+\dfrac{x^2+2x+4}{x^2-4}$

3. $\dfrac{7}{4x-2}-\dfrac{5}{4x-2}$

4. $\dfrac{x^2+3x+2}{x^2-2x+1}-\dfrac{3x+3}{x^2-2x+1}$

5. $\dfrac{x-2}{x-1}+\dfrac{1}{x-1}$

Problem Set

Perform the indicated operation.

1. $\dfrac{6}{3a-9} - \dfrac{3}{3a-9}$

2. $\dfrac{x^2-3x-7}{x^2-9} + \dfrac{x^2-2x+4}{x^2-9}$

3. $\dfrac{7}{3x-6} - \dfrac{4}{3x-6}$

4. $\dfrac{x^2+2x+2}{x^2-4x+4} - \dfrac{2x+6}{x^2-4x+4}$

5. $\dfrac{x-2}{x-4} - \dfrac{2}{x-4}$

Problem Set

1. $$\frac{6-3}{3a-9}$$
$$= \frac{3}{3a-9}$$
$$= \frac{3}{3(a-3)}$$
$$= \frac{1}{a-3}$$

2. $$\frac{x^2-3x-7+x^2-2x+4}{x^2-9}$$

$$= \frac{2x^2 - 5x - 3}{x^2 - 9}$$

$$= \frac{(x-3)(2x+1)}{(x-3)(x+3)}$$

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

3. $$\frac{\frac{7-4}{3x-6}}{\frac{3}{3}}$$

$$= \frac{3}{\frac{3x-6}{3}}$$

$$= \frac{3}{3(x-2)}$$

$$= \frac{1}{x-2}$$

4.

$$= \frac{x+2}{x-2}$$

5.

$$= 1$$