1) $y = \dfrac{x^2 + 2x}{x^2 - 4}$

2) $y = \dfrac{x^2 - 5x + 4}{x^2 - 1}$

3) $y = \dfrac{3x^2 - 6x}{x^2 - 6x + 8}$

4) $y = \dfrac{x - 1}{1 - x}$

Simplify

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

2) $y = \frac{x-4}{x+1}$

3) $y = \frac{3x}{x-4}$

4) $y = -1$

Answers

A) $\dfrac{x+1}{(x+2)(x-3)} \cdot \dfrac{x^2-4}{x^2-x-2}$

B) $\dfrac{x^2-16}{(x+5)} \div \dfrac{x^2+8x+16}{x^2+3x-10}$

Answers

A) $\dfrac{1}{x-3}$

B) $\dfrac{x^2-6x+8}{x+4}$

C) $\dfrac{x^2+7x+6}{x^2+5x-6} \cdot \dfrac{2x^2-2x}{x+1}$

D) $\dfrac{\dfrac{x+3}{x^2-8x+15}}{\dfrac{x^2-9}{x^2-4x-5}}$

$c)\ 2x$

D) $\dfrac{x+1}{x^2+6x+9}$

Answers

A) $\dfrac{x}{(x+3)(x-2)} + \dfrac{x-1}{(x-3)(x-2)}$

B) $\dfrac{2}{x^2-4} - \dfrac{x}{(x+3)(x-2)}$

A) $\dfrac{2x^2 - x - 3}{x^3 - 2x - 9x + 18}$

B) $\dfrac{-x^2 + 6}{x^3 + 3x^2 - 4x - 12}$

Answers

C) $\dfrac{x+1}{(x-3)(x+2)} + \dfrac{x-2}{x^2+5x+6}$

D) $\dfrac{2x}{(x+1)(x-2)} - \dfrac{3}{x^2-1}$

C) $\dfrac{2x^2 - x + 9}{x^3 + 2x^2 - 9x - 18}$

D) $\dfrac{2x^2 - 5x + 6}{x^3 - 2x^2 - x + 2}$

Answers

5. Rewrite as a single rational expression.

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

Answer

$$2x - 4 \mid x + 1$$