Exercises - Rational Expressions

1

If $n \neq 4$, which of the following is equivalent

to
$$\frac{n^2}{n-4} + \frac{4n}{4-n}$$
?

- A) n
- B) $\frac{n(n+4)}{n-4}$
- C) $\frac{n}{n-4}$
- $D) \frac{n+4}{n-4}$

2

If $a \neq \pm 1$, which of the following is equivalent

to
$$\frac{a}{a^2-1} - \frac{1}{a+1}$$
?

- A) $\frac{1}{a-1}$
- B) $\frac{1}{a+1}$
- C) $\frac{2a-1}{a^2-1}$
- D) $\frac{1}{a^2-1}$

3

If $y \neq -1$ and $y \neq 0$, which of the following is

equivalent to
$$\frac{y^2 - 1}{1 + \frac{1}{y}}$$
?

- A) $\frac{y-1}{y}$
- B) y(y-1)
- C) $\frac{y}{y+1}$
- D) y-1

4

If $x \neq \pm 1$, which of the following is equivalent

to
$$\frac{1-\frac{1}{x+1}}{1+\frac{1}{x^2-1}}$$
?

- A) $\frac{x-1}{x}$
- B) $\frac{x+1}{x}$
- C) $\frac{x-1}{x^2}$
- D) $\frac{x+1}{x^2}$

5

If x > 3, which of the following is equivalent

to
$$\frac{x-3}{\frac{1}{x+2} - \frac{1}{2x-1}}$$
?

- A) $\frac{x-3}{(x+2)(2x-1)}$
- B) $\frac{(x+2)(2x-1)}{x-3}$
- C) (x+2)(2x-1)
- D) 2x-1

6

If $\frac{x^2 - xy}{2x} \div \frac{x - y}{3x^2} = ax^2$, what is the value of a?