Name

Rational Functions and Asymptotes - Calculate Slant Asymptote (Factored, With Remainder)

1

What is the slant asymptote of this rational function? $f(x) = \frac{3(x+2)(x-2)}{(x+1)}$

A Slant asymptote at $y = x + 5$

B Slant asymptote at $y = 3x - 3$

C Slant asymptote at $y = -2x - 3$

D Slant asymptote at $y = x - 7$

2

What is the slant asymptote of this rational function? $f(x) = \frac{2(x+3)(x+1)}{x}$

A Slant asymptote at $y = -3x + 9$

B Slant asymptote at $y = 3x - 6$

C Slant asymptote at $y = 3x + 9$

D Slant asymptote at $y = 2x + 8$

3

What is the slant asymptote of this rational function? $f(x) = \frac{-(x+4)(x-3)}{(x+2)}$

A Slant asymptote at $y = -3x - 8$

B Slant asymptote at $y = x + 5$

C Slant asymptote at $y = -x + 1$

D Slant asymptote at $y = x + 9$

4

What is the slant asymptote of this rational function? $f(x) = \frac{-(x+4)(x-2)}{(x+2)}$

A Slant asymptote at $y = -2x + 4$

B Slant asymptote at $y = -x$

C Slant asymptote at $y = 3x - 7$

D Slant asymptote at $y = x + 5$

5

What is the slant asymptote of this rational function? $f(x) = \frac{-2(x+2)(x-2)}{(x-1)}$

A Slant asymptote at $y = x + 1$

B Slant asymptote at $y = 2x + 3$

C Slant asymptote at $y = -2x - 2$

D Slant asymptote at $y = 2x + 1$

6

What is the slant asymptote of this rational function? $f(x) = \frac{3x(x-2)}{(x-4)}$

A Slant asymptote at $y = 2x - 1$

B Slant asymptote at $y = -x + 4$

C Slant asymptote at $y = 3x + 6$

D Slant asymptote at $y = x + 7$

7

What is the slant asymptote of this rational function? $f(x) = \frac{-2(x+1)(x-3)}{(x+3)}$

A Slant asymptote at $y = x + 8$

B Slant asymptote at $y = -x + 3$

C Slant asymptote at $y = -2x + 10$

D Slant asymptote at $y = 3x - 8$

8

What is the slant asymptote of this rational function? $f(x) = \frac{-x(x-1)}{(x-4)}$

A Slant asymptote at $y = -x - 3$

B Slant asymptote at $y = -2x - 1$

C Slant asymptote at $y = x$

D Slant asymptote at $y = -3x + 9$