Name

Rational Functions and Asymptotes - Calculate Slant Asymptote (Expanded, No Remainder)

1

What is the slant asymptote of this rational function? $f(x) = \dfrac{2x^2 + 10x + 12}{x + 3}$

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

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

C Slant asymptote at $y = 2x + 4$

D Slant asymptote at $y = 3x - 1$

2

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

A Slant asymptote at $y = 2x + 6$

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

C Slant asymptote at $y = x - 2$

D Slant asymptote at $y = -2x$

3

What is the slant asymptote of this rational function? $f(x) = \dfrac{3x^2 - 48}{x - 4}$

A Slant asymptote at $y = x - 4$

B Slant asymptote at $y = 3x + 12$

C Slant asymptote at $y = x + 5$

D Slant asymptote at $y = x + 6$

4

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

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

B Slant asymptote at $y = 2x - 6$

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

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

5

What is the slant asymptote of this rational function? $f(x) = \dfrac{x^2 - 5x + 6}{x - 3}$

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

B Slant asymptote at $y = x - 2$

C Slant asymptote at $y = -2x - 9$

D Slant asymptote at $y = x + 7$

6

What is the slant asymptote of this rational function? $f(x) = \dfrac{2x^2 - 4x - 6}{x + 1}$

A Slant asymptote at $y = -2x + 3$

B Slant asymptote at $y = 3x + 7$

C Slant asymptote at $y = 3x + 4$

D Slant asymptote at $y = 2x - 6$

7

What is the slant asymptote of this rational function? $f(x) = \dfrac{2x^2 - 6x + 4}{x - 1}$

A Slant asymptote at $y = x + 2$

B Slant asymptote at $y = 2x - 4$

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

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

8

What is the slant asymptote of this rational function? $f(x) = \dfrac{-2x^2 - 2x + 12}{x - 2}$

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

B Slant asymptote at $y = -2x - 6$

C Slant asymptote at $y = 3x + 5$

D Slant asymptote at $y = x - 7$