

Rational Expressions WS #6

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Identify the vertical asymptotes, x-intercepts, y - intercepts, and horizontal asymptote of each. Simplify the rational expression.

1) $f(x) = \frac{x^2 - x - 6}{-4x - 4}$

2) $f(x) = \frac{2x^3 - 10x^2 + 8x}{x^3 - 4x}$

3) $f(x) = \frac{x - 1}{3x + 6}$

4) $f(x) = \frac{x^2 + 4x + 3}{4x + 16}$

$$5) \ f(x) = \frac{x^3 - 16x}{2x^2 + 4x}$$

$$6) \ f(x) = \frac{1}{4x^2 - 4x - 24}$$

$$7) \ f(x) = \frac{2}{x + 1}$$

$$8) \ f(x) = \frac{x + 4}{2x^2 + 6x}$$