1. Determine the vertical asymptotes and holes in the rational function below.

$$f(x) = \frac{6x^3 - 29x^2 + 46x - 24}{9x^2 - 6x - 8}$$

A. Vertical Asymptotes of $x = -0.667$ and $x = 1.5$ with a hole at $x = 1.333$

B. Holes at $x = -0.667$ and $x = 1.333$ with no vertical asymptotes.

C. Vertical Asymptote of $x = -0.667$ and hole at $x = 1.333$

D. Vertical Asymptotes of $x = -0.667$ and $x = 1.333$ with no holes.

E. Vertical Asymptote of $x = 0.667$ and hole at $x = 1.333$

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2. Determine the horizontal and/or oblique asymptotes in the rational function below.

$$f(x) = \frac{4x^3 + 14x^2 - 49x + 30}{12x^3 - 41x^2 + 40x - 12}$$

A. Vertical Asymptote of $y = 2$

B. Horizontal Asymptote of $y = 0$

C. Horizontal Asymptote of $y = 3.000$

D. Vertical Asymptote of $y = -5.000$

E. None of the above

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3. Determine the horizontal and/or oblique asymptotes in the rational function below.

$$f(x) = \frac{6x^3 + 19x^2 - 45x - 100}{2x^2 - x - 10}$$

A. Horizontal Asymptote of $y = 3.0$

B. Oblique Asymptote of $y = 3x + 11$.

C. Horizontal Asymptote of $y = 3.0$ and Oblique Asymptote of $y = 3x + 11$

D. Horizontal Asymptote of $y = -2.0$ and Oblique Asymptote of $y = 3x + 11$

E. Horizontal Asymptote at $y = -2.0$

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4. Determine the vertical asymptotes and holes in the rational function below.

$$f(x) = \frac{4x^3 - 19x - 15}{8x^2 - 26x + 15}$$

A. Vertical Asymptotes of $x = 0.75$ and $x = -1.5$ with a hole at $x = 2.5$

B. Vertical Asymptote of $x = 0.75$ and hole at $x = 2.5$

C. Vertical Asymptote of $x = 0.5$ and hole at $x = 2.5$

D. Holes at $x = 0.75$ and $x = 2.5$ with no vertical asymptotes.

E. Vertical Asymptotes of $x = 0.75$ and $x = 2.5$ with no holes.

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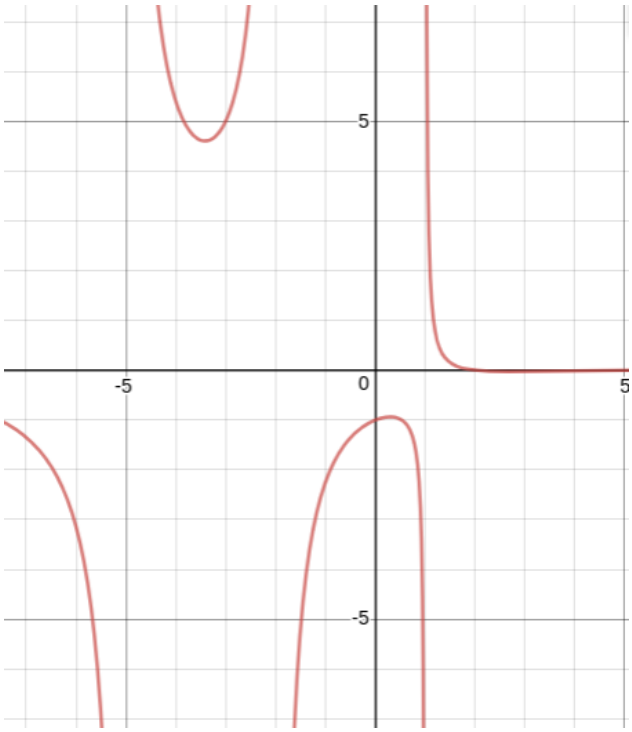
5. Which of the following functions *could* be the graph below?



A. $f(x) = \dfrac{x^3 + x^2 - 30x - 72}{x^3 - 2x^2 - 5x + 6}$

B. $f(x) = \dfrac{x^3 + 6x^2 + 5x - 12}{x^3 - 6x^2 + 3x + 10}$

C. $f(x) = \dfrac{x^3 - 7x^2 + 36}{x^3 - 4x^2 + x + 6}$

D. $f(x) = \dfrac{x^3 - 1x^2 - 26x - 24}{x^3 + 6x^2 + 3x - 10}$

E. None of the above are possible equations for the graph.
