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

$$f(x) = \frac{4x^3 - 49x - 60}{6x^2 + 13x + 6}$$

   A. Vertical Asymptotes of $x = -0.667$ and $x = -2.5$ with a hole at $x = -1.5$

   B. Vertical Asymptotes of $x = -0.667$ and $x = -1.5$ with no holes.

   C. Vertical Asymptote of $x = -0.667$ and hole at $x = -1.5$

   D. Holes at $x = -0.667$ and $x = -1.5$ with no vertical asymptotes.

   E. Vertical Asymptote of $x = 0.667$ and hole at $x = -1.5$

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

$$f(x) = \frac{8x^3 + 58x^2 + 119x + 60}{16x^2 - 8x - 15}$$

   A. Vertical Asymptote of $x = 1.25$ and hole at $x = -0.75$

   B. Vertical Asymptotes of $x = 1.25$ and $x = -2.5$ with a hole at $x = -0.75$

   C. Vertical Asymptotes of $x = 1.25$ and $x = -0.75$ with no holes.

   D. Holes at $x = 1.25$ and $x = -0.75$ with no vertical asymptotes.

   E. Vertical Asymptote of $x = 0.5$ and hole at $x = -0.75$

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

$$f(x) = \frac{-15x^3 + 49x^2 - 70x + 24}{6x^3 - 35x^2 + 66x - 40}$$

   A. Vertical Asymptote of $y = 0.600$

B. Vertical Asymptote of $y = 2$

C. None of the above

D. Horizontal Asymptote of $y = 0$

E. Horizontal Asymptote of $y = -0.400$

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

$$f(x) = \frac{16x^3 - 8x^2 - 23x + 15}{4x^2 + 13x + 10}$$

A. Horizontal Asymptote at $y = -2.0$

B. Horizontal Asymptote of $y = 4.0$

C. Horizontal Asymptote of $y = -2.0$ and Oblique Asymptote of $y = 4x - 15$

D. Oblique Asymptote of $y = 4x - 15$.

E. Horizontal Asymptote of $y = 4.0$ and Oblique Asymptote of $y = 4x - 15$

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5. Which of the following functions *could* be the graph below?
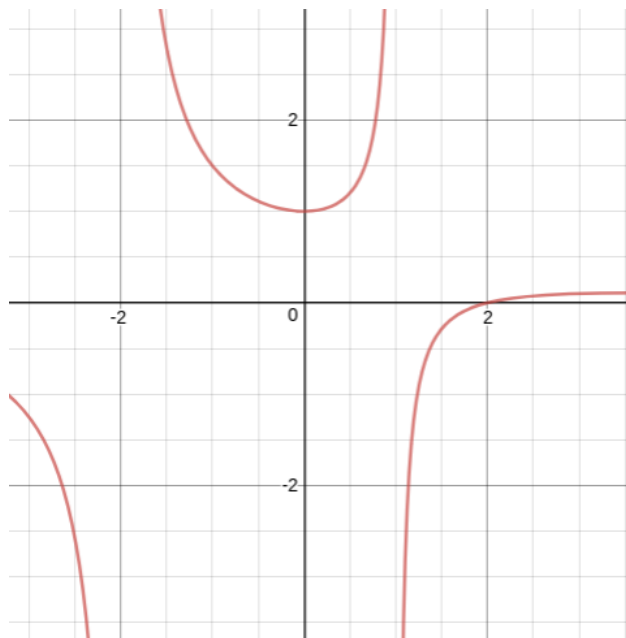
A. $f(x) = \dfrac{x^3 - 8x^2 + 9x + 18}{x^3 + 6x^2 + 3x - 10}$

B. $f(x) = \dfrac{x^3 + 9x^2 + 23x + 15}{x^3 + 5x^2 + 2x - 8}$

C. $f(x) = \dfrac{x^3 - 3x^2 - 36x + 108}{x^3 - 6x^2 + 3x + 10}$

D. $f(x) = \dfrac{x^3 + 6x^2 - 7x - 60}{x^3 + 3x^2 - 6x - 8}$

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