
Give complete solutions to the following problems be sure to provide all the necessary steps to support your answers.

1. Find all x intercepts and the y intercept of the function Ans _____

$$f(x) = \frac{x^3 - x^2 + 2x - 2}{x^4 + 1}$$

2. Find all asymptotes of the function Ans _____

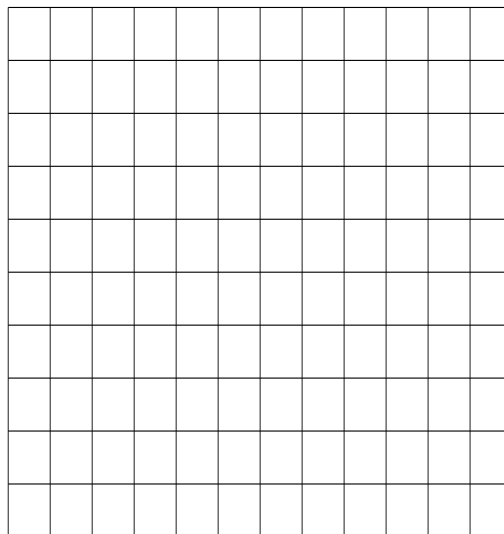
$$f(x) = \frac{x^4 - 1}{(x - 1)(x^3 - 1)}$$

3. Find the slant asymptote of the function Ans _____

$$g(x) = \frac{x^3}{x^2 + 2x - 2}$$

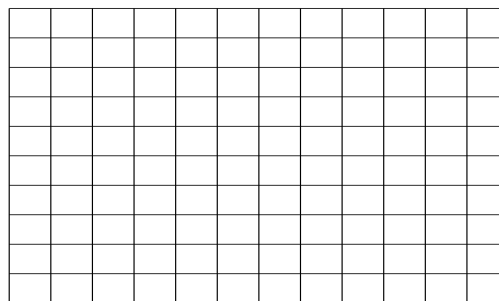
4. State the domain, the intercepts, the asymptotes of the function then produce its graph.

$$g(x) = \frac{2x^2 - 5x - 3}{x^3 - 2x^2 - x + 2}$$



5. State the domain, the intercepts, the asymptotes of the function then produce its graph.

$$g(x) = \frac{2}{x^2 + 1}$$



6. State the domain, the intercepts, the asymptotes of the function then produce its graph.

$$g(x) = \frac{x^3}{2x^2 - 8}$$

