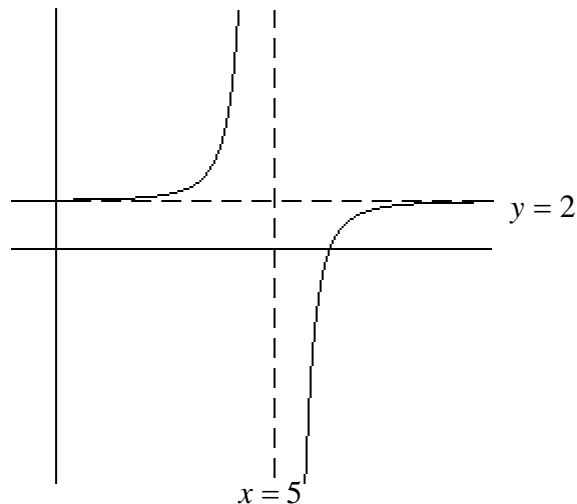
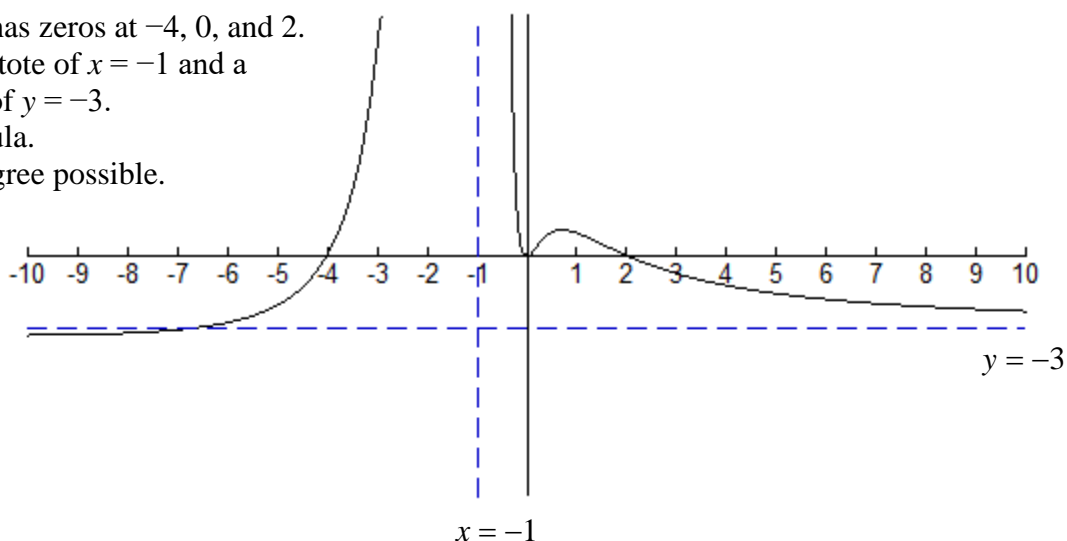


1. The given graph is a translation of  $y = \frac{-4}{x^3}$

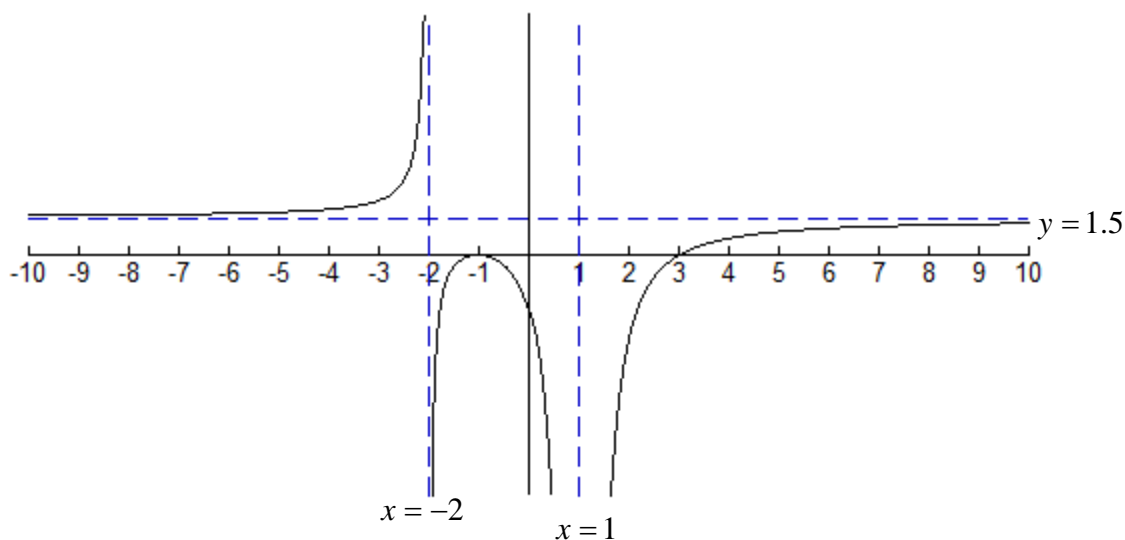
- Write a formula. (Use a shift transformation.)
- Report the exact value of the zero.
- Report the y-intercept.



2. The rational function has zeros at  $-4$ ,  $0$ , and  $2$ . It has a vertical asymptote of  $x = -1$  and a horizontal asymptote of  $y = -3$ . Write a possible formula. Assume the lowest degree possible.



3. The rational function has zeros at  $-1$  and  $3$ . It has a vertical asymptotes of  $x = -2$  and  $x = 1$  and a horizontal asymptote of  $y = 1.5$ . Write a possible formula. Assume the lowest degree possible.



The graph is an enlargement of the function in Question 1 on the previous page.

Use your answers to parts **b** and **c** to fill in the boxes with **exact** values.

