

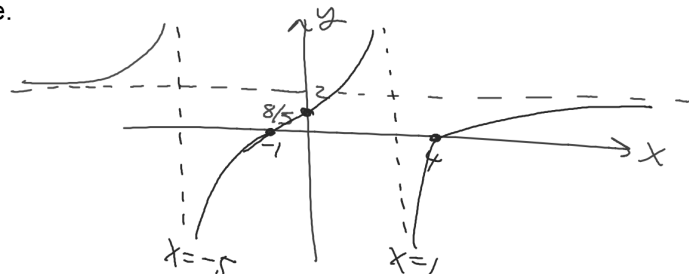
Find all intercepts and asymptotes.

$$y = \frac{2(x-4)(x+1)}{(x-1)(x+5)} = \frac{2x^2 - 6x - 8}{x^2 + 4x - 5}$$

X-intercepts  $x = -1, 4$  VA  $x = 1, -5$

Y-intercept  $= \frac{8}{5}$  HA  $y = 2$

Then sketch the graph of this rational function. Show all intercepts. Show all asymptotes as dashed lines and show the proper behavior around each asymptote.



W varies jointly with the cube of M and C and inversely with the product of G and the square of X.

W = 0.648 when M = 3, C = 6, G = 8, and X = 10.

Find the value of M when W = 500, C = 5, G = 2, X = 11

$$W = \frac{K M^3 C}{G X^2}$$

$$.648 = \frac{K (3)^3 6}{8 \cdot 100}$$

$$K = 3.2$$

$$W = \frac{3.2 M^3 C}{G X^2}$$

$$500 = \frac{3.2 (5) M^3}{2 \cdot 121}$$

$$\sqrt[3]{7562.5} = \sqrt[3]{M^3}$$

$$M = 19.63$$

Write the equation of this graph which is a transformation of  $y = \frac{2}{x}$

$$y = \frac{-2}{x+2} - 1$$

$y = -1$   
1 down

graph is upside down.

