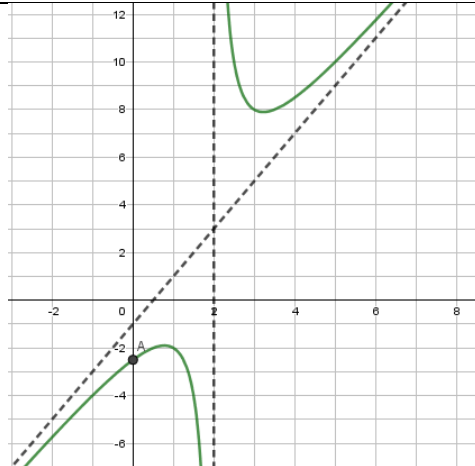
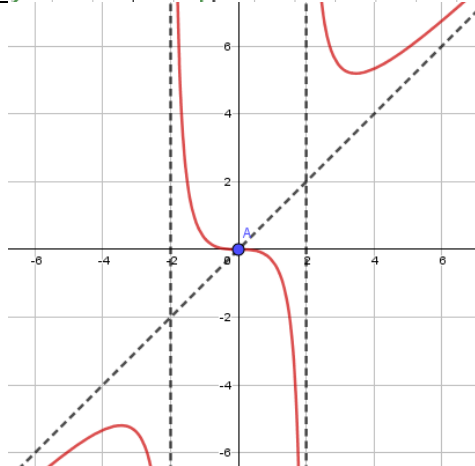
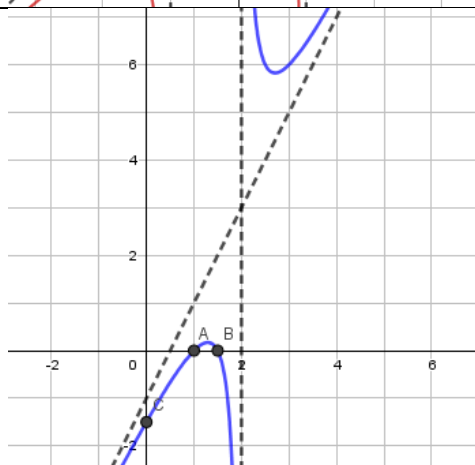
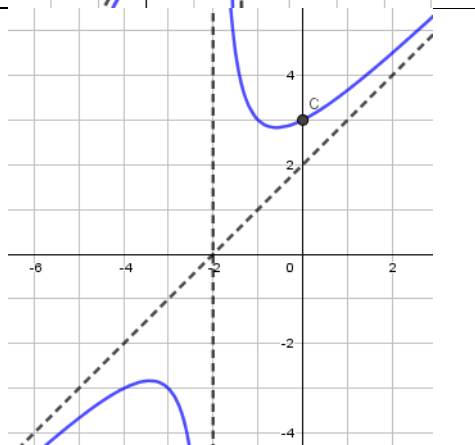
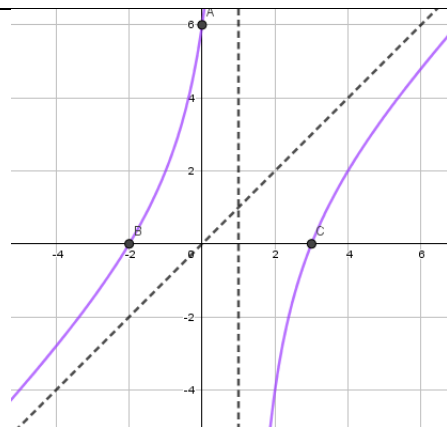


Graph the following rational function. Identifies also, holes, asymptotes, x-,y-intercepts as well as its domain.

$f(x)$	graph	requested info
$\frac{x^3}{x^2-1}$		<p>domain:  <math>x \in (-\infty, -1) \cup (-1, 1) \cup (1, \infty)</math></p> <p>holes: none</p> <p>VA: <math>x = \pm 1</math></p> <p>Slant A: <math>y = x</math></p> <p>x-int: <math>(0, 0)</math></p> <p>y-int: <math>(0, 0)</math></p>
$\frac{x^3}{x^2+4}$		<p>domain: <math>x \in (-\infty, \infty)</math></p> <p>holes: none</p> <p>VA: none</p> <p>Slant A: <math>y = x</math></p> <p>x-int: <math>(0, 0)</math></p> <p>y-int: <math>(0, 0)</math></p>
$\frac{1-x^2}{x}$		<p>domain: <math>x \in (-\infty, 0) \cup (0, \infty)</math></p> <p>holes: none</p> <p>VA: <math>x = 0</math></p> <p>Slant A: <math>y = -x</math></p> <p>x-int: <math>(\pm 1, 0)</math></p> <p>y-int: does not exist</p>

$\frac{2x^2 - 5x + 5}{x - 2}$		<p>domain: <math>x \in (-\infty, 2) \cup (2, \infty)</math></p> <p>holes: none</p> <p>VA: <math>x = 2</math></p> <p>Slant A: <math>y = 2x - 1</math></p> <p>x-int: DNE</p> <p>y-int: <math>(0, -\frac{5}{2})</math></p>
$\frac{x^3}{x^2 - 4}$		<p>domain: <math>x \in (-\infty, -2) \cup (-2, 2) \cup (2, \infty)</math></p> <p>holes: none</p> <p>VA: <math>x = \pm 2</math></p> <p>Slant A: <math>y = x</math></p> <p>x-int: <math>(0, 0)</math></p> <p>y-int: <math>(0, 0)</math></p>
$\frac{2x^2 - 5x + 3}{x - 2}$		<p>domain: <math>x \in (-\infty, 2) \cup (2, \infty)</math></p> <p>holes: none</p> <p>VA: <math>x = 2</math></p> <p>Slant A: <math>y = 2x - 1</math></p> <p>x-int: <math>(1, 0), (\frac{3}{2}, 0)</math></p> <p>y-int: <math>(0, -\frac{3}{2})</math></p>
$\frac{x^2 + 4x + 6}{x + 2}$		<p>domain: <math>x \in (-\infty, -2) \cup (-2, \infty)</math></p> <p>holes: none</p> <p>VA: <math>x = -2</math></p> <p>Slant A: <math>y = x + 2</math></p> <p>x-int: DNE</p> <p>y-int: <math>(0, 3)</math></p>

$$\frac{x^2 - x - 6}{x - 1}$$



domain:  $x \in (-\infty, 1) \cup (1, \infty)$

holes: none

VA:  $x = 1$

Slant A:  $y = x$

x-int:  $(-2, 0), (3, 0)$

y-int:  $(0, 6)$