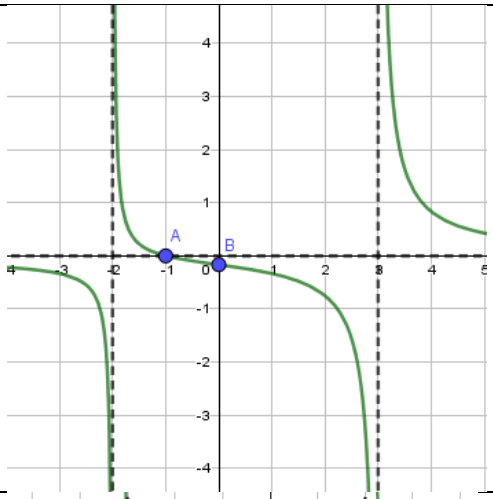
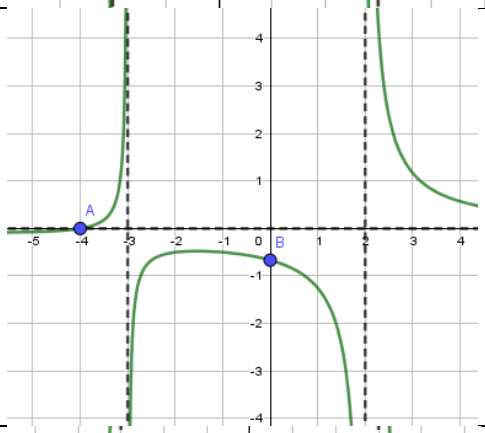
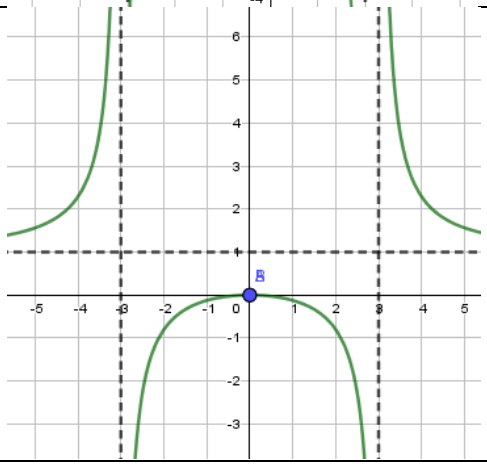
VD unit 2 topic 7 part 1

Graph the rational function $f(x)$,

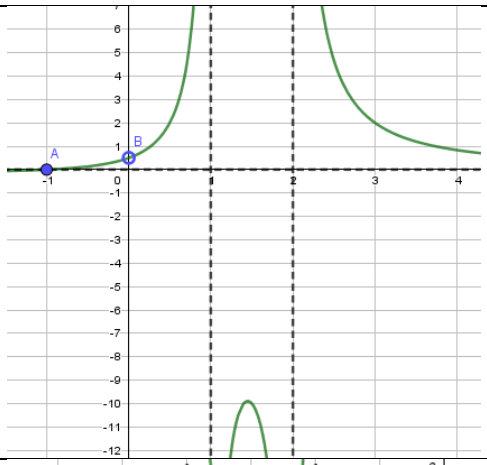
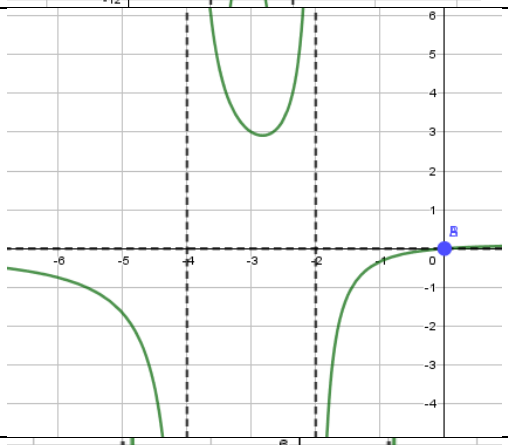
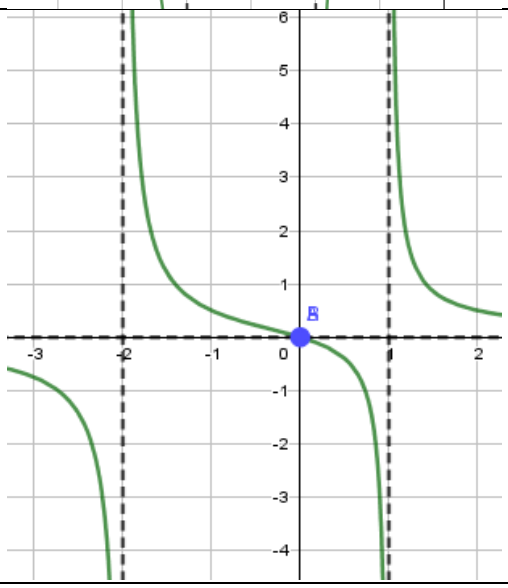
(a) identify the holes of the function if they exists.

(b) identify asymptotes if they exists.

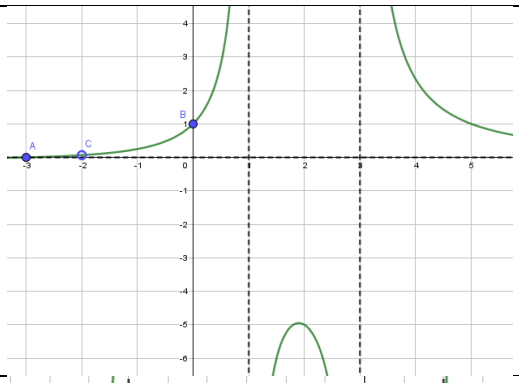
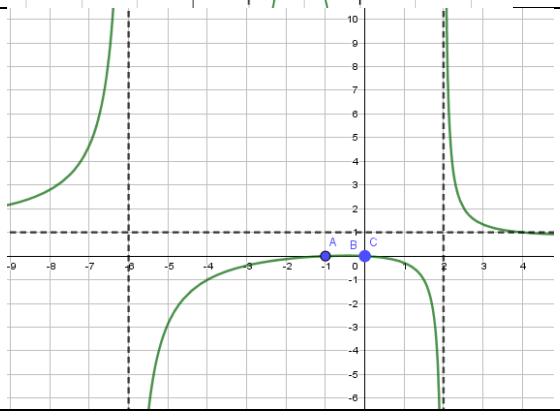
(c) identify x-intercepts and y-intercepts if they exists.

$f(x)$	Graph	info required by the questions
$\frac{x+1}{x^2-x-6}$		HA: $y=0$ VA: $x=-2, x=3$ holes: no hole x-int: $(-1,0)$ y-int: $(0,-\frac{1}{6})$
$\frac{x+4}{x^2+x-6}$		HA: $y=0$ VA: $x=2, x=-3$ holes: no hole x-int: $(-4,0)$ y-int: $(0,-\frac{2}{3})$
$\frac{x^2}{x^2-9}$		HA: $y=1$ VA: $x=3, x=-3$ holes: no hole x-int: $(0,0)$ y-int: $(0,0)$

VD unit 2 topic 7 part 1

$\frac{x^2+x}{x^3-3x^2+2x}$		HA: $y=0$ VA: $x=2, x=-3$ holes: at $(0,\frac{1}{2})$ x-int: $(-4,0)$ y-int: not exist
$\frac{2}{x+4}-\frac{1}{x+2}$		HA: $y=0$ VA: $x=-4, x=-2$ holes: no hole x-int: $(0,0)$ y-int: $(0,0)$
$\frac{x}{x^2+x-2}$		HA: $y=0$ VA: $x=1, x=-2$ holes: no hole x-int: $(0,0)$ y-int: $(0,0)$

VD unit 2 topic 7 part 1

		HA: $y=0$ VA: $x=1, x=3$ holes: at $(-2, \frac{1}{15})$ x-int: $(-3,0)$ y-int: $(0,1)$
$\frac{x(x+1)}{x^2+4x-12}$		HA: $y=1$ VA: $x=-6, x=2$ holes: no hole x-int: $(0,0),(-1,0)$ y-int: $(0,0)$