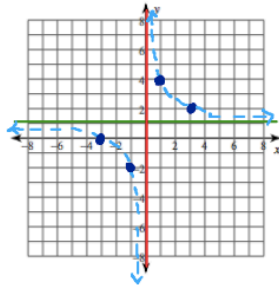


$$4) f(x) = \frac{3}{x} + 1$$



x	f(x)
-3	0
-1	-2
0	und
1	4
3	2

V.A. $x=0$

H.A. $y=1$

D: $\{x | x \neq 0\}$

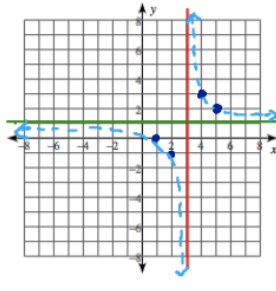
$(-\infty, 0) \cup (0, \infty)$

R: $\{y | y \neq 1\}$

$(-\infty, 1) \cup (1, \infty)$

Transformations:
 $a=3$ vertical stretch
 $k=1$ up 1

$$5) f(x) = \frac{2}{x-3} + 1$$



x	f(x)
1	0
2	-1
3	und
4	3
5	2

V.A. $x=3$

H.A. $y=1$

D: $\{x | x \neq 3\}$

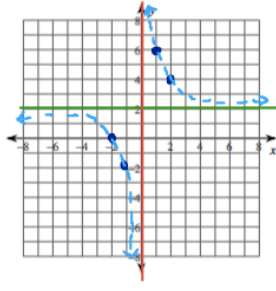
$(-\infty, 3) \cup (3, \infty)$

R: $\{y | y \neq 1\}$

$(-\infty, 1) \cup (1, \infty)$

Transformations:
 $a=2$ vertical stretch
 $h=3$ right 3
 $k=1$ up 1

$$6) f(x) = \frac{4}{x} + 2$$



x	f(x)
-2	0
-1	-2
0	und
1	6
2	4

V.A. $x=0$

H.A. $y=2$

D: $\{x | x \neq 0\}$

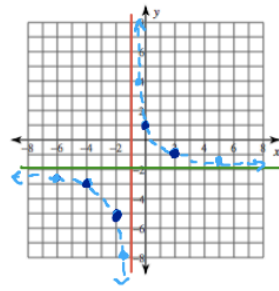
$(-\infty, 0) \cup (0, \infty)$

R: $\{y | y \neq 2\}$

$(-\infty, 2) \cup (2, \infty)$

Transformations:
 $a=4$ vertical stretch
 $k=2$ up 2

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



x	f(x)
-4	-3
-2	-5
-1	und
0	1
2	-1

V.A. $x=-1$

H.A. $y=-2$

D: $\{x | x \neq -1\}$

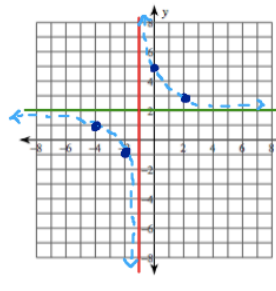
$(-\infty, -1) \cup (-1, \infty)$

R: $\{y | y \neq -2\}$

$(-\infty, -2) \cup (-2, \infty)$

Transformations:
 $a=3$ vertical stretch
 $h=-1$ left 1
 $k=-2$ down 2

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



x	f(x)
-4	1
-2	-1
-1	und
0	5
2	3

V.A. $x=-1$

H.A. $y=2$

D: $\{x | x \neq -1\}$

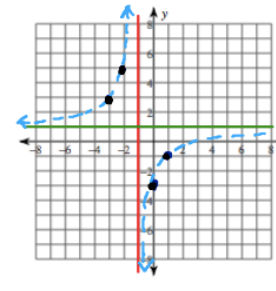
$(-\infty, -1) \cup (-1, \infty)$

R: $\{y | y \neq 2\}$

$(-\infty, 2) \cup (2, \infty)$

Transformations:
 $a=3$ vertical stretch
 $h=-1$ left 1
 $k=2$ up 2

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



x	f(x)
-3	3
-2	5
-1	und
0	-3
1	-1

V.A. $x=-1$

H.A. $y=1$

D: $\{x | x \neq -1\}$

$(-\infty, -1) \cup (-1, \infty)$

R: $\{y | y \neq 1\}$

$(-\infty, 1) \cup (1, \infty)$

Transformations:
 $a=-4$ ref. over x-axis vert. st.
 $h=-1$ left 1
 $k=1$ up 1