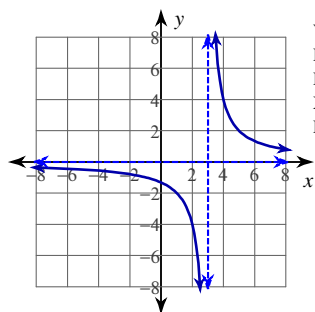


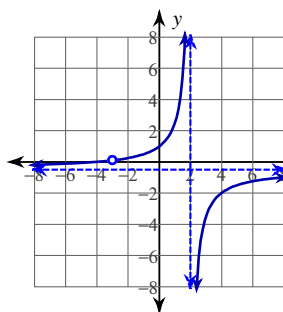
# Answers to 4.4: Graphing Rational Functions Practice (ID: 1)

1)



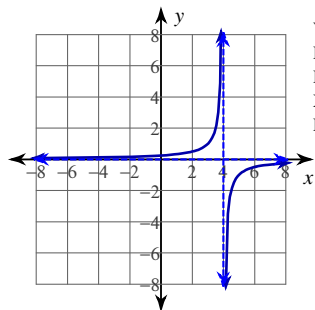
Vertical Asym.:  $x = 3$   
 Holes: None  
 Horz. Asym.:  $y = 0$   
 X-intercepts: None  
 Domain:  
 All reals except 3

2)



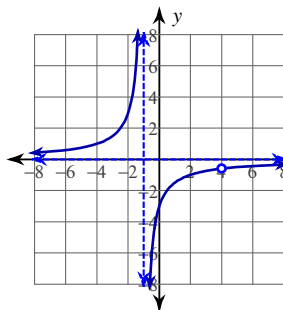
Vertical Asym.:  $x = 2$   
 Holes:  $x = -3$   
 Horz. Asym.:  $y = -\frac{1}{2}$   
 X-intercepts:  $-4$   
 Domain:  
 All reals except 2,  $-3$

3)



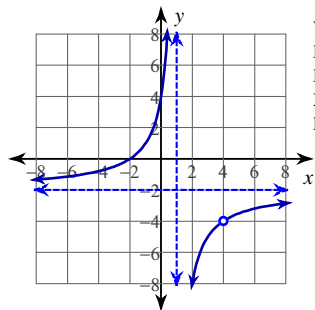
Vertical Asym.:  $x = 4$   
 Holes: None  
 Horz. Asym.:  $y = 0$   
 X-intercepts: None  
 Domain:  
 All reals except 4

4)



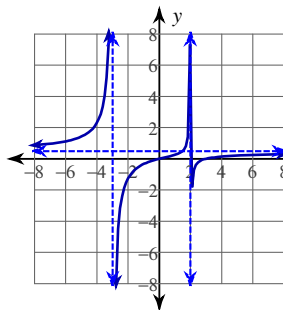
Vertical Asym.:  $x = -1$   
 Holes:  $x = 4$   
 Horz. Asym.:  $y = 0$   
 X-intercepts: None  
 Domain:  
 All reals except  $-1, 4$

5)



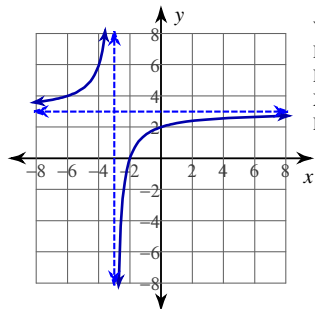
Vertical Asym.:  $x = 1$   
 Holes:  $x = 4$   
 Horz. Asym.:  $y = -2$   
 X-intercepts:  $-2$   
 Domain:  
 All reals except 1, 4

6)



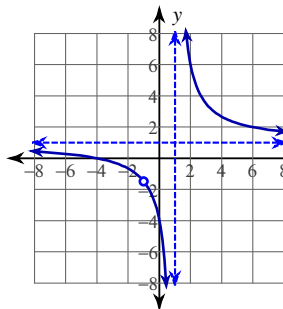
Vertical Asym.:  $x = -3, x = 2$   
 Holes: None  
 Horz. Asym.:  $y = \frac{1}{2}$   
 X-intercepts: 0, 3  
 Domain:  
 All reals except  $-3, 2$

7)



Vertical Asym.:  $x = -3$   
 Holes: None  
 Horz. Asym.:  $y = 3$   
 X-intercepts:  $-2$   
 Domain:  
 All reals except  $-3$

8)



Vertical Asym.:  $x = 1$   
 Holes:  $x = -1$   
 Horz. Asym.:  $y = 1$   
 X-intercepts:  $-4$   
 Domain:  
 All reals except 1,  $-1$