NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_

**5.2/5.3: Graphing Rational Functions**

1. 
2. 

a) **Graph** a) **Graph**



b) **Domain**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b) **Domain**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) **Range**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c) **Range**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) **Equations** of Vertical Asymptote(s): d) **Equations** of Vertical Asymptote(s):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e) **Coordinates** of any hole(s): \_\_\_\_\_\_\_\_\_\_\_ e) **Coordinates** of any hole(s): \_\_\_\_\_\_\_\_\_\_\_

f) **Equation** of horizontal asymptote(s): f) **Equation** of horizontal asymptote(s):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

g) **Coordinates** of the x-intercept(s): \_\_\_\_\_\_\_ g) **Coordinates** of the x-intercept(s): \_\_\_\_\_\_\_

h) **Coordinates** of the y-intercept: \_\_\_\_\_\_\_ h) **Coordinates** of the y-intercept: \_\_\_\_\_\_\_

1. 
2. 

a) **Graph** a) **Graph**



b) **Domain**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b) **Domain**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) **Range**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c) **Range**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) **Equations** of Vertical Asymptote(s): d) **Equations** of Vertical Asymptote(s):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e) **Coordinates** of any hole(s): \_\_\_\_\_\_\_\_\_\_\_ e) **Coordinates** of any hole(s): \_\_\_\_\_\_\_\_\_\_\_

f) **Equation** of horizontal asymptote(s): f) **Equation** of horizontal asymptote(s):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

g) **Coordinates** of the x-intercept(s): \_\_\_\_\_\_\_ g) **Coordinates** of the x-intercept(s): \_\_\_\_\_\_\_

h) **Coordinates** of the y-intercept: \_\_\_\_\_\_\_ h) **Coordinates** of the y-intercept: \_\_\_\_\_\_\_

1. 
2. 

a) **Graph** a) **Graph**



b) **Domain**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b) **Domain**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) **Range**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c) **Range**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) **Equations** of Vertical Asymptote(s): d) **Equations** of Vertical Asymptote(s):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e) **Coordinates** of any hole(s): \_\_\_\_\_\_\_\_\_\_\_ e) **Coordinates** of any hole(s): \_\_\_\_\_\_\_\_\_\_\_

f) **Equation** of horizontal asymptote(s): f) **Equation** of horizontal asymptote(s):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

g) **Coordinates** of the x-intercept(s): \_\_\_\_\_\_\_ g) **Coordinates** of the x-intercept(s): \_\_\_\_\_\_\_

h) **Coordinates** of the y-intercept: \_\_\_\_\_\_\_ h) **Coordinates** of the y-intercept: \_\_\_\_\_\_\_

**5.4: Multiplying and Dividing Rational Expressions**

Perform the indicated operation.

1. 
2. 
3. 
4. 
5. 
6. 

**5.5: Adding and Subtracting Rational Expressions**

Perform the indicated operation.

1. 
2. 
3. 
4. 
5. 
6. 

**5.6: Solving Rational Equations**

Solve for x.

1. 
2. 
3. 
4. 
5. 
6. 