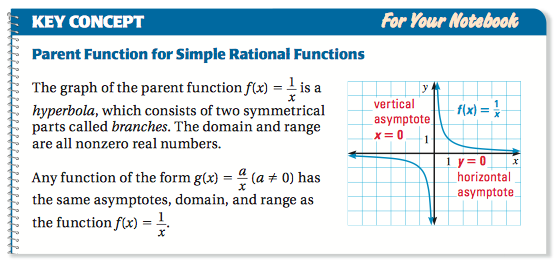
 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Vocabulary**

What is a rational function?



Plug in point into table for the equation of the parent function.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| x | -4 | -2 | -1 | -½ | -¼ | 0 | ¼ | ½ | 1 | 2 | 4 |
| f(x) |  |  |  |  |  |  |  |  |  |  |  |

What is an asymptote?

What is a vertical asymptote?

What is a horizontal asymptote?

Macintosh HD:Users:mollyurquhart:Desktop:Screen Shot 2014-03-03 at 10.20.47 AM.png

Go to [www.desmos.com](http://www.desmos.com) and launch calculator. Then, in your book, turn to page 561 and complete problems #3-10. **Do evens first with Desmos and odds without Desmos.**

3.

4.

5.

6.

7.

8.

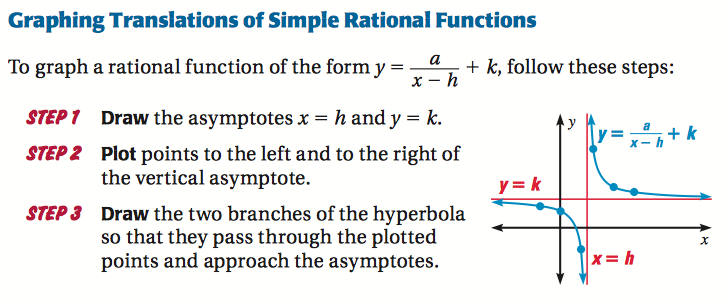
9.

10.

25.

How does the variable “a” affect the parent function of a rational function?

**Key Concept**

****

Macintosh HD:Users:mollyurquhart:Desktop:Screen Shot 2014-03-03 at 10.21.58 AM.png

Go to [www.desmos.com](http://www.desmos.com) and launch calculator. Then, in your book, turn to page 561 and complete problems #11-23. **Do evens first with Desmos and odds without Desmos.**

11.

12.

13.

14.

15.

16.

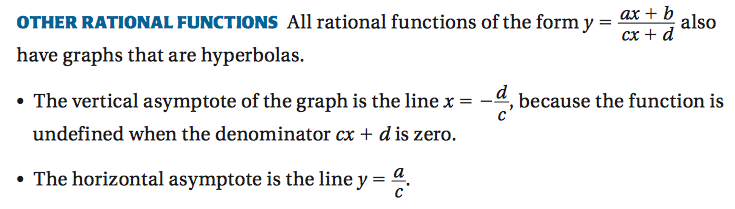
17.

18.

26.

How do the variables “a,” “h,” and “k” affect the parent function of a rational function?

**Key Concept**



Ask Ms. U how to find x-intercept(s) and vertical asymptotes.



In your book, turn to page 561 and complete problems #27,29,30,31, and 33.

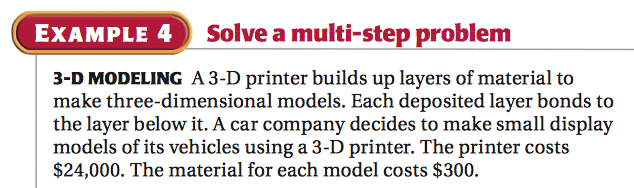
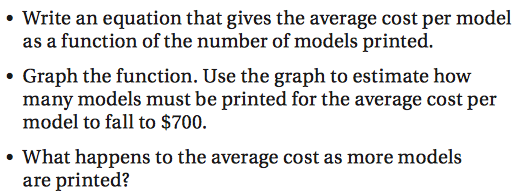
27.

29.

30.

31.

33.

On a separate sheet of paper do problems #37 and 38