Math 20-1 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Checkpoint 1: Absolute Value Equations and Graphs, Reciprocal Graphs, Systems

1. Draw the absolute value graph of the following:
2. Fill in the chart below for the following. Round to the nearest tenth if necessary.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Function | Domain | Range | x-intercept(s) | Y-intercept |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

1. Solve the following absolute value equations algebraically and verify.
2.  b. 

c.  d. 

1. Sketch the following functions and . State the equations of any asymptotes.
   1.  b. 

y

x

10

10

-10

-10

y

x

10

10

-10

-10

5. Solve the following systems graphically, state the solution as a point(s). Round answers to the nearest tenth if needed.

1.  b.

6. Solve the following systems of equations algebraically; either substitution of elimination.

a.  b. 

7. Determine two integers that have the following relationships; write the equations and solve algebraically.

Twice the larger of two numbers is three more than five times the smaller.

The sum of four times the larger and three times the smaller is 71.