Integrated 3 Chapter 1 Review Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_\_\_

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| 1. Given  , ,  and Find: a) b) c)  if d)  ife)  if | 2. What happens when we push these two functions together to form a composition of functions? Try dropping in **at least three** numbers and look for and **describe a pattern** with the outputs. Show your work .  and  |
| 3. What are the domain and range for each of the following functions?  http://images.flatworldknowledge.com/reddenint/reddenint-fig04_050.png b.D: D:R: R: Image result for domain range problems c. d.   D: D:  R: R:   | 4. Given  and  Find:a)   b) c) d)  |
| 5. Graph the following function (be sure to label the asymptotes).a) http://www.mathnstuff.com/gif/5x5plan.gifD: R: | 6. Sketch a graph with the following domain and range:1. Domain:

 Range: 1. Domain:

 Range:  |
| 7. Solve the following equations using the Zero Product Property:1.
2.
3.
 | 8. Solve the following equations using the quadratic formula:1.
2.
3.
 |
| 9. Write the following in inequality notation.a) is between -2 and 6b)  is between 4 and 10c)  is greater than -7 and less than or equal to 5d)  is greater than or equal to -8 and less than 9.  | 10. Find the x and y intercepts of the following. Show your work.a)  b)   |
| 11.  Solve for . Show your work. |
| 1.

 c)  | b)  d)   |
| 12.  State whether the following are polynomials. State the degree of each polynomial. |
|   a)  c)  e)  | b) d) f)  |