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

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| 1. Given  , ,  and  Find:  a)  b)  c)  if  d)  if  e)  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.gif  D:  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: | 8. Solve the following equations using the quadratic formula: | | |
| 9. Write the following in inequality notation.  a) is between -2 and 6  b)  is between 4 and 10  c)  is greater than -7 and less than or equal to 5  d)  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. | | | |
| c) | | b)  d) | |
| 12.  State whether the following are polynomials. State the degree of each polynomial. | | | |
| a)  c)  e) | | b)  d)  f) | |