MATH 1314 College Algebra *EXAM* 2 *REVIEW*

1. Given 
   1. Graph 
   2. Find 
2. Given  ***find***:

*a*)  *b*)  *c*)  *d*) 

1. Given  ***find***:

*a*)  *b*)  *c*)  *d*) 

1. Determine if each function is odd, even, or neither.

*a*)  *b*)  *c*) 

*d)*  *e*) 

1. Let , and  Find the following:

*a*) Domain *f b*) Domain *g c*) Domain *h*

*d*) Domain  *e*) Domain of 

*f*) Domain  *g*) Domain of 

1. Let  and . Find the following:

a)  b)  c)  d) 

1. Let , , and . Find the following functions, and state the domain of each:

*a*)  *b*)  *c*) 

1. Find the difference quotient  for

*a*)  *b*)  *c*)  *d*) 

1. An airplane is flying at an altitude of 3700 *ft*. The slanted distance directly to the airport is *d* feet. Express the horizontal distance *h* as a function of *d*.
2. Determine the end behavior of the graph of the polynomial function.
3. 
4. 
5. 
6. 
7. 
8. Find the quotient and the remainder:
9. 
10. 
11. 
12. 
13. Use the Intermediate Value Theorem to determine whether the function has zeros between ***a***and ***b***.
14. 
15. 
16. 
17. 
18. Use synthetic division to find the indicated function value
    * 1. 
      2. 
19. Find all solutions of the equation: 
20. Use the Rational Zero theorem to list all possible rational zero for each of the following:
21. 
22. 
23. 
24. Find the ***vertical*** and ***horizontal*** asymptotes (if any) of:

|  |  |
| --- | --- |
|  |  |

***SOLUTION***

1. *a*)



*b*) 

1. *a*) -1 *b*) 0 *c)* 1 *d*) 2
2. *a*)  *b*)  *c*)  *d*) 
3. *a*) even *b*) even *c*) odd *d*) neither *e*) neither
4. *a*)  *b*)  *c*)  *d*) 

*e*)  *f*)  *g)* 

1. *a*) 95 *b*) 127 *c*)  *d)* 
2. *a*) ; 

*b*) ; 

*c*) ; 

1. *a*) 4 *b*) −4 *c*)  *d*) 
2. 
3. *a*) Leading Term: ; rises left and right

*b*) Leading Term: ; rises left and right

*c*) Leading Term: ; rises left and falls right

*d*) Leading Term: ; fall left and rises right

*e*) Leading Term: ; falls left and right

1. *a*) 

*b*) 

*c*) 

*d*) 

1. *a*) Can’t be determined

*b*) Yes

*c*) Yes

*d*) Can’t be determined

1.  
2. 
3. *a*) 

*b*) 

*c) *

1. *a*) 

*b*) 

*c*) 

*d*) 