

NAME \_\_\_\_\_

MATH 1314

DATE \_\_\_\_\_

## TEST 1 REVIEW

ANSWER THE QUESTIONS.

DETERMINE IF THE RELATION IS A FUNCTION.

1)  $\{(1, -4), (3, -4), (5, -2)\}$  2)  $\{(2, 0), (1, 3), (2, -5)\}$

3)  $y = 4x^2 + 9$

4)  $x = 3y^2 - 1$

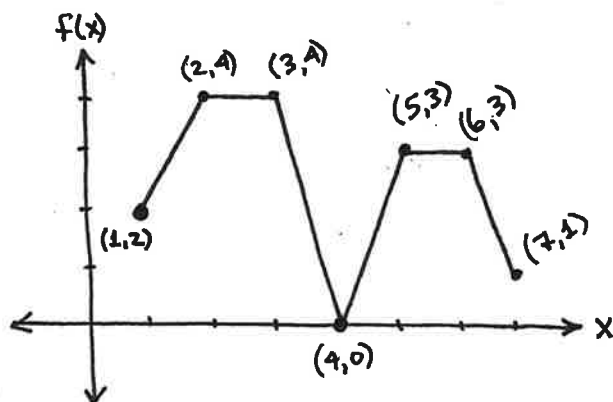
EVALUATE  $f(x) = 3x^2 - 5x + 2$  AT THE FOLLOWING

5)  $f(1)$

6)  $f(-8)$

7)  $f(n)$

8)  $f(n+1)$

FIND THE FOLLOWING FOR  $f(x)$  IN THE GRAPH.

9) DOMAIN

13) MAXIMUM

10) RANGE

14) MINIMUM

11) INCREASING

12) DECREASING

DETERMINE IF THE EQUATION IS EVEN, ODD, OR NEITHER.

15)  $y = x^3 - 5x + 1$

16)  $y = x^2 + 4$

17)  $y = 2x^3$

18) FIND THE EQUATION OF THE LINE WITH SLOPE  $\frac{1}{2}$  AND CONTAINING  $(8, 5)$ .19) FIND THE SLOPE AND Y-INTERCEPT OF  $3x + 2y - 6 = 0$ .

20) GRAPH  $f(x) = \begin{cases} x+3 & \text{if } x \leq 2 \\ -x+6 & \text{if } x > 2 \end{cases}$

21) FIND THE DIFFERENCE QUOTIENT OF  $f(x) = 2x^2 - 5x + 1$ .

22) GRAPH  $f(x) = (x-1)^2 + 3$ .

23) GRAPH  $f(x) = \sqrt{x+2} + 4$ .

$f(x) = x-1$   $g(x) = 4x^2$

24) FIND  $(f+g)(x)$ . 25) FIND  $f[g(x)]$ . 26) FIND  $g[f(x)]$ .

FIND THE INVERSE.

27)  $f(x) = 3x + 1$

28)  $f(x) = \frac{2x-3}{x+5}$