Math 1314	Exam 2	March 2018
	Answer the questions in the spaces provided.	

Name and Time: _____

G-Number: _____

1. Show that the Points A, B, C form a triangle by plotting and show that $\triangle ABC$ is right angled triangle. Also find the mid-point of side BC. $A = (-6, 3), B = (3, -5), C = (-1, 5)$ _____

2. Find the x- intercept, y - intercept, check for symmetry, also plot the graph for $y = x^2 - 2$ _____

3. Find the slope (m) and equation of the line containing the points $(-3, 4)$and$(2, 5)$. _____

4. Check whether following two lines are parallel, perpendicular or neither?

a) $y = 2x - 3$ and $y = 2x + 4$ _____

a) $y = 4x + 5$ and $y = -4x + 2$ _____

5. Find the following

a) Find the Equation of the circle with center $(h, k) = (-5, -2)$ and radius $r = 7$. _____

b) Find the center and raduis of the given circle $(x + 3)^2 + (y - 1)^2 = 16$ _____

6. Check whether following are functions or not?

a) $y = x^3$ _____

b) $y = \frac{3x-1}{x+2}$ _____

c) $x = y^2$ _____

7. For $f(x) = 3x + 4, g(x) = 2x - 3$ find the following

a) Find $f(0), \quad g(1), \quad g(-1), \quad f(x+h)$

b) Find $\frac{f(x+h)-f(x)}{h}$

c) Find $(f+g)(x) \quad (f-g)(x) \quad (f.g)(x) \quad (\frac{f}{g})(x)$

8. Check whether following are functions odd, even or neither?

a) $y = 2x^4 - x^2$ _____

b) $y = (3x^3 + 5)$ _____

9. Find the average value of the function $f(x) = -2x^2 + 4$ from 0 to 2. _____

10. Find the following for the function $f(x) = \frac{2x}{x-2}$?

a) Domain _____

b) Is the point $(1/2, -2/3)$ is on the Graph? _____

c) If $x = 4$, what if $f(x)$ what point is on the Graph? _____

d) Find the y-intercept. _____