King Fahd University of Petroleum & Minerals
Faculty of Science
Math 001 Quiz # 9

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Name: Sect. ID#:

1) Find the equation of the line passing through (-2, 3) & (-2, 11).

2) Let L be the line with x- intercept $(a,0)$ & y-intercept $(0,3a^2)$ where $a \neq 0$. If L is perpendicular to the line $2x + 3y = 5$ then:

   a) Find the value of *a*. b) Use **a** to find the equation of the line L.

3) Sketch the graph of $\frac{3}{4}x + y = 3$ using slope & y-intercept method.

4) Sketch the graph of $f(x) = -2x^2 + 8x - 3$ show the vertex & all intercepts.

5) Find the quadratic function with vertex (4, -1) & passing (2, -3).

6) The sum of 2 numbers is 80. If their product is maximum. Find the 2 numbers.

7) Given $f(x)=\frac{3}{4}x^2+\frac{2}{5}x-7$, then:

a) Find the vertex b) Line of symmetry c) Max or Min d) The range.

8) Find the equation of the line that passes through the center of the circle $x^2-8x+y^2-2y+13=0$ & the vertex of the parabola $f(x)=-(x-6)^2$