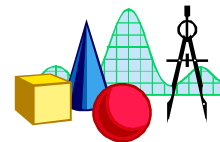




MATH DEPT. TUTORIAL 3



Tutorial 3: Graphing: linear and quadratic functions, vertical and horizontal shifting.

- Find the equation and then graph each of the following straight lines.
 - The line passing through the two points $P(1, -3)$ and $Q(2, 5)$
 - The line passing through the point $P(-2, 1)$ and having slope $m = -3$
 - The line having slope $m = 5$ and y intercept -4
 - The line having y intercept -2 and x intercept 3
- Using the graph of the line $y = -2x$ graph each of the following straight lines.
 - The line $y = -2x + 1$
 - The line $y = -2(x+1)$
 - The line $y = -2(x+1) + 2$
 - The line $y = -2(x-1) - 3$
- Using the graph of the parabola $y = x^2$ sketch the graph of each of the following.
 - $y = x^2 - 2$
 - $y = x^2 + 3$
 - $y = (x-1)^2$
 - $y = -x^2 + 1$
 - $y = -(x+1)^2$
 - $y = (x+1)^2 + 1$
 - $y = (x-2)^2 - 2$
- Sketch the graph of each of the following parabolas. Label the vertex.
 - $y = x^2 + 4x + 4$
 - $y = (x^2 - 6x + 9) - 2$
 - $y = x^2 + 2x$
 - $y = -x^2 - 2x$