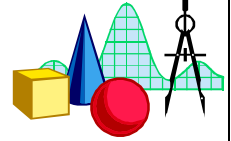




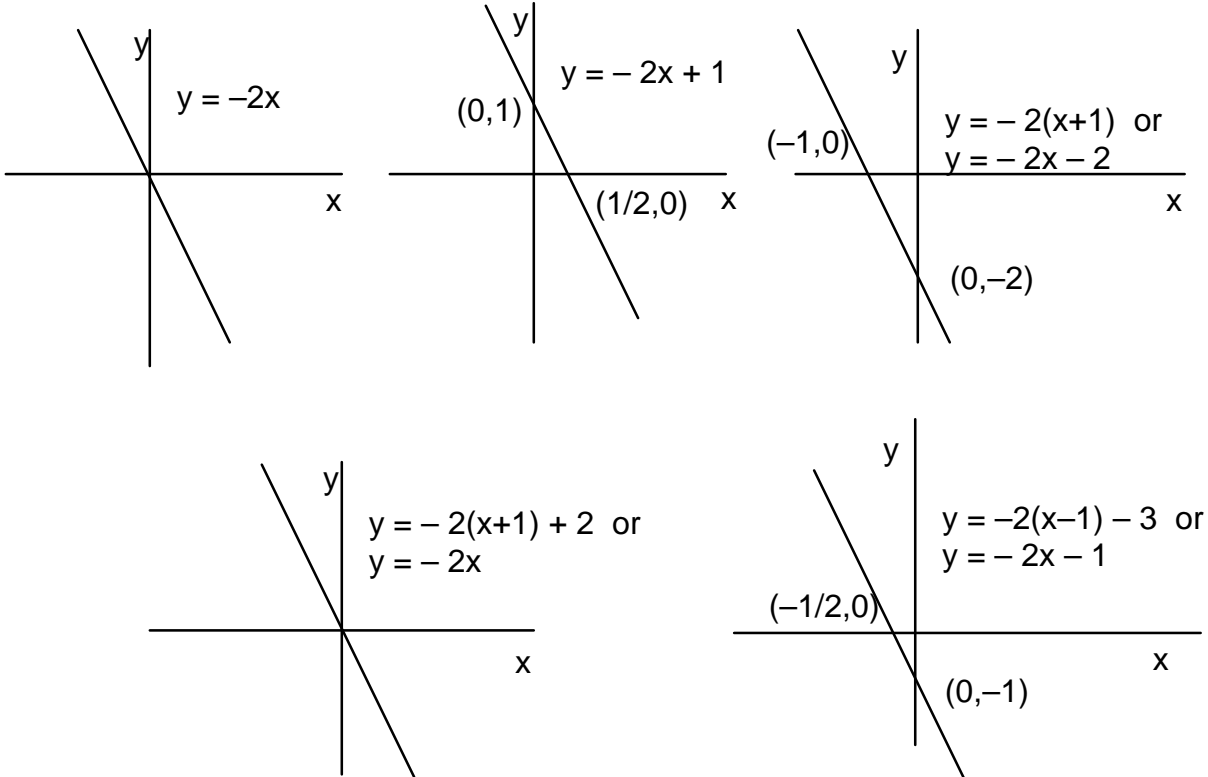
MATH DEPT. SOLUTION TO TUTORIAL 3



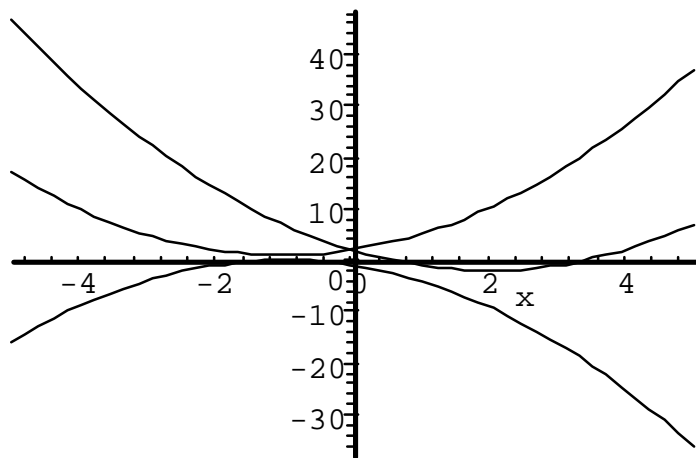
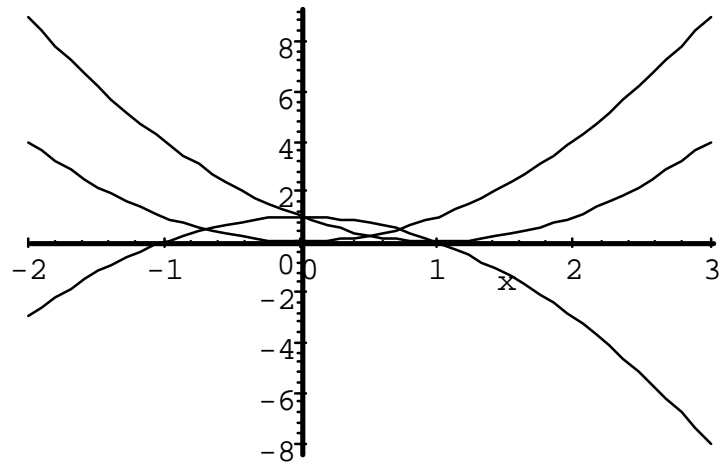
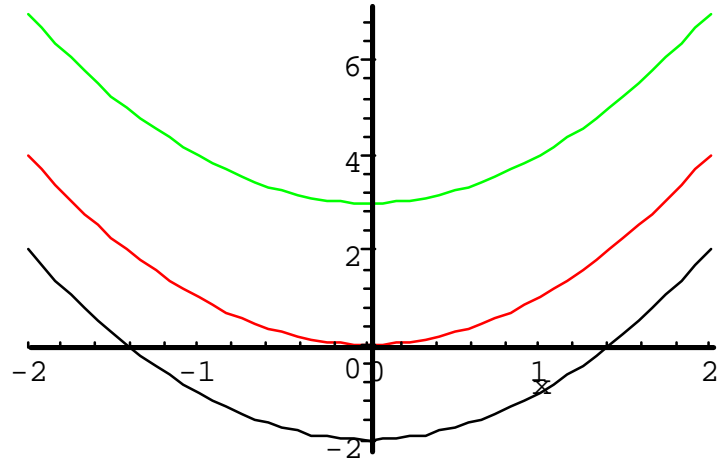
Solution 3: Graphing: linear and quadratic functions, vertical and horizontal shifting.

1. (i) Using the two point form for the equation of a straight line we have $\frac{y - (-3)}{x - 1} = \frac{5 - (-3)}{2 - 1}$ or $\frac{y + 3}{x - 1} = 8$,
 $y + 3 = 8(x - 1)$ or $y = 8x - 11$
- (ii) Using the slope and one point form we have
 $y - 1 = -3(x - (-2))$ or $y - 1 = -3(x + 2)$; $y = -3x - 5$
- (iii) Using the slope and y intercept form we have $y = 5x - 4$
- (iv) Note that we are given two points on the line P(0,-2) and Q(3,0). Using the two point form we have
 $\frac{y - (-2)}{x - 0} = \frac{0 - (-2)}{3 - 0}$ or $\frac{y + 2}{x} = \frac{2}{3}$; $y + 2 = \frac{2}{3}x$; $y = \frac{2}{3}x - 2$

2.



3.



4.

