Linear graphs and quadratic graphs

1) Draw the graph of $y = 3x + 4$ for x-values from 0 to 5 ($0 \leq x \leq 5$).

x	0	1	2	3	4	5
y						

2) Draw the graph of $y = 2x - 5$ for $0 \leq x \leq 5$.

x	0	1	2	3	4	5
y						

3) Draw the graph of $y = -3x + 12$ for $0 \leq x \leq 10$.

4) Draw the graph of $y = 3x + 5$ for $-3 \leq x \leq 3$.

5) Copy and complete the table for the graph of $y = 3x^2$ for $-3 \leq x \leq 3$.

x	–3	–2	–1	0	1	2	3
$y = 3x^2$	27		3			12	

6) Copy and complete the table for the graph of $y = x^2 + 2$ for $-5 \leq x \leq 5$.

x	–5	–4	–3	–2	–1	0	1	2	3	4	5
$y = x^2 + 2$	27		11					6			

7) Copy and complete the table for the graph of $y = x^2 - 3x$ for $-5 \leq x \leq 5$.

x	–5	–4	–3	–2	–1	0	1	2	3	4	5
x^2	25		9					4			
$-3x$	15							–6			
y	40							–2			

b. Use your graph to find the value of y when $x = 3.5$.
c. Use your graph to find the values of x that give a y-value of 5.

8) Copy and complete the table for the graph of $y = x^2 - 5x + 4$ for $-2 \leq x \leq 5$.

x	–2	–1	0	1	2	3	4	5
y	18		4			–2		

b. Use your graph to find the value of y when $x = -0.5$.
c. Use your graph to find the values of x that give a y-value of 3.

9) Complete the table of values for $y = x^2 + x - 3$

x	–4	–3	–2	–1	0	1	2
y	9		–1	–3			3

10) On the grid below, draw the graph of $y = x^2 + x - 3$ for values of x from –4 to 2