## National 5 Homework - Relationships

## QUADRATIC GRAPHS

1. (a) This graph has equation in the form $y=k x^{2}$. Find the value of $k$.

(b) This graph has equation of the form $y=(x+p)^{2}+q$. Write down its equation.

2. Sketch the graphs of the following showing clearly any intercepts with the axes and the turning point.
(a) $y=(x-4)(x+2)$
(b) $\quad y=(x-5)^{2}+3$
3. For the quadratic function $y=3-(x+1 / 2)^{2}$, write down
(a) its turning point and the nature of it.
(b) the equation of the axis of symmetry of the parabola.
