National 5 Homework – Relationships

QUADRATIC GRAPHS

1. (a) This graph has equation in the form $y = kx^2$. 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) $y = (x-5)^2 + 3$ (7)
- 3. For the quadratic function $y = 3 (x + \frac{1}{2})^2$, write down
 - (a) its turning point and the nature of it. (3)
 - (b) the equation of the axis of symmetry of the parabola. (1)

15 marks