

## Show all working – <u>NO</u> calculator required.

## <u>Marks</u>

- **1.** Write each of the following quadratic expressions in the form  $a (x + b)^2 + c$ :
  - **a**)  $x^2 + 6x 3$  (**b**)  $x^2 5x + 1$  (4)
- 2. Show that the function  $f(x) = x^2 16x + 7$  can be written in the form  $f(x) = (x + p)^2 + q$ and write down the values of p and q. (3)
- 3. Show that the function  $f(x) = x^2 + 8x 5$  can be written in the form  $f(x) = (x a)^2 + b$ and write down the values of *a* and *b*. (3)

**Total Marks: 10**