

Name: _____
YEAR 11 MINI-ASSESSMENT 15
HIGHER – QUADRATICS

1. (a) Expand and fully simplify $(3x - 4)^2$ **(2)**
- (b) Factorise $x^2 - 12x + 32$ **(2)**
- (c) Hence solve the equation $x^2 - 12x + 32 = 0$ **(2)**
- (1)**
[5 marks]
2. (a) Write $y = x^2 - 8x + 3$ in the form $y = (x + a)^2 + b$ where a and b are integers to be found.
- (b) Hence, or otherwise, solve the equation $x^2 - 8x + 3 = 0$, giving your answers as surds. **(3)**
- (3)**
[6 marks]
3. Solve the equation $3x = \frac{10}{x} + 1$

[4 marks]