Topic 15 Quadratics 1 (Post-TT) [30]

1.

Circle the equation with roots 4 and –8

[1 mark]

$4x(x-8)=0$ $(x-4)(x+8)=0$

$x^2-32=0$ $(x+4)(x-8)=0$

2.

Factorise x^2+3x-4

(Total 2 marks)

3.

(a) Factorise $x^2+5x-14$

(2)

(b) Hence solve the equation $x^2+5x-14=0$

(1)

(Total 3 marks)

4. (a) Show that one solution of the equation $x^3-6x-72=0$ lies between 4 and 5. (2)
(b) Find this solution correct to 1 decimal place. (4)

(Total 6 marks)

5.

(a) Factorise $x^2+3x-40$

(2)

(b) Hence, solve the equation $x^2+3x-40=0$

(1)

(Total 3 marks)

6. (a) Show that one solution of the equation $2x^3-x-80=0$ lies between 3 and 4. (2)
(b) Find this solution correct to 2 decimal places. (5)

(Total 7 marks)

7.

Solve the equation $z^2-8z+15=0$

(Total 3 marks)

8. **Non-calculator**

Factorise fully $20x^2-5$

(Total 2 marks)

9. **Non-calculator**

Solve by factorising.

$3x^2-8x+5=0$

(Total 3 marks)