GRADE 11 · EQUATIONS AND INEQUALITIES

Simultaneous Equations: One Linear, One Quadratic (Grade 11)

WORKSHEET

Name: ..... Class: .....

Date: .....

MARK ____ / 25

Answer all questions. Show all your working — marks are awarded for method as well as the final answer.

1 Solve simultaneously: $y = x + 1$ and $y = x^2 - 3x + 4$ **(4)**

2 Solve simultaneously: $y = 2x$ and $y = x^2 - 3$ **(4)**

3 Solve simultaneously: $x + y = 5$ and $x^2 + y^2 = 17$ **(4)**

4 Solve simultaneously: $y - x = 2$ and $xy = 8$ **(4)**

5 Which equation should you rearrange first, and why? **(2)**

6 Solve simultaneously: $y = x - 1$ and $y = x^2 - 5x + 7$ **(4)**

7 The solutions of a simultaneous system are the ... of the two graphs. **(1)**

8 What does it mean if the resulting quadratic has a negative discriminant? **(2)**

TOTAL: 25 marks

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