InkMaths

QUESTION WORKBOOK

Simultaneous equations and inequalities

Algebra and functions · Year 12–13

6 questions · 20 marks

PRINT EDITION

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SECTION A · Warm-up

A1 Solve simultaneously: $2x + y = 7$ and $x - y = 2$. [2]

A2 Solve the inequality $x^2 - x - 12 < 0$. [3]

SECTION B · Standard

B1 Find the points of intersection of the line $y = x + 1$ and the curve $y = x^2 - 3x + 4$. [4]

B2 The line $y = 2x + c$ is a tangent to the curve $y = x^2$. Find the value of c. [3]

B3 Solve the inequality 2/x > 1. [4]

SECTION C · Stretch

C1 Find the set of values of x for which $x^2 + 2x - 15 \geq 0$, giving your answer in set notation. [4]