

## A2 Maths Test 2 Version O

1) Simplify  $\frac{x^2-x-2}{x^2-5x+6} \div \frac{x^2+2x+1}{x^2-9}$

2) Prove that  $2 - \tan^2 x \equiv 2 \sec^2 x - 3 \tan^2 x$

## A2 Maths Test 2 Version P

1) Simplify  $\frac{x^2+5x+4}{x^2-9} \div \frac{x^2+3x+2}{x^2-x-6}$

2) Prove that  $\operatorname{cosec}^2 x (\tan^2 x - \sin^2 x) \equiv \tan^2 x$

## A2 Maths Test 2 Version Q

1) Simplify  $\frac{x^2+5x+4}{x^2-9} \times \frac{x^2-x-6}{x^2+3x+2}$

2) Prove that  $\sec x + \operatorname{cosec} x \cot x \equiv \sec x \operatorname{cosec}^2 x$

## A2 Maths Test 2 Version R

1) Simplify  $\frac{x^2-5x+6}{x^2-x-2} \div \frac{x^2-9}{x^2+2x+1}$

2) Prove that  $\tan^2 x + 2 \sec^2 x - 2 = 3 \tan^2 x$

Answers version O

$$\frac{x+3}{x+1}$$

Answers version P

$$\frac{x+4}{x+3}$$

Answers Version Q

$$\frac{x+4}{x+3}$$

Answers Version Q

$$\frac{x+1}{x+3}$$

