

**ALGEBRA (Q 2 & 3, PAPER 1)**

**LESSON NO. 7: SIMULTANEOUS EQUATIONS**

**2007**

3 (b) Solve the simultaneous equations

$$\frac{x}{4} - \frac{y}{3} = \frac{5}{6}$$

$$2x - 6 = 3y.$$

**2006**

3 (b) Solve for  $x$  and  $y$

$$x - 2y = 10$$

$$x^2 + y^2 = 20.$$

**2005**

2 (b) Solve for  $x$  and  $y$

$$x + 3 = 2y$$

$$xy - 7y + 8 = 0.$$

**2004**

3 (b) Solve for  $x$  and  $y$

$$x + y = 1$$

$$x^2 + y^2 = 13.$$

**2002**

3 (b) (i) Solve for  $x$  and  $y$

$$y = 10 - 2x$$

$$x^2 + y^2 = 25.$$

(ii) Hence, find the two possible values of  $x^3 + y^3$ .

**2001**

2 (b) Solve for  $x$  and  $y$

$$x + 2y = 3$$

$$x^2 - y^2 = 24.$$

**2000**

2 (b) Solve for  $x$  and  $y$

$$x - 3y = 1$$

$$x^2 - y^2 = 0.$$

**1999**

3 (b) Solve for  $x$  and  $y$

$$x + 2y = 6$$

$$x^2 + y^2 = 17.$$

**1998**

2 (a) Solve

$$5x - 2y = 13$$

$$3(x - 4) = 4y.$$

**1996**

2 (a) Solve

$$2x - y = 7$$

$$x + 2y = 6.$$

**ANSWERS**

**2007** 3 (b) (6, 2)

**2006** 3 (b)  $x = 2$ ,  $y = -4$

**2005** 2 (b) (-1, 1), (5, 4)

**2004** 3 (b) (i) (3, -2), (-2, 3)

**2002** 3 (b) (i) (3, 4), (5, 0) (ii) 91, 125

**2001** 2 (b) (-7, 5), (5, -1)

**2000** 2 (b)  $(\frac{1}{4}, -\frac{1}{4})$ ,  $(-\frac{1}{2}, -\frac{1}{2})$

**1999** 3 (b) (4, 1),  $(-\frac{8}{5}, \frac{19}{5})$

**1998** 2 (a)  $x = 2$ ,  $y = -\frac{3}{2}$

**1996** 2 (a)  $x = 4$ ,  $y = 1$