# Simultaneous Linear Equations (Grade 10)

## MEMORANDUM

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

Date: .....

MARK ____ / 24

*Answer all questions. Show all your working — marks are awarded for method as well as the final answer.* **Teacher copy: accept any correct equivalent method.**

**1** Solve: $y = 2x$ and $x + y = 9$ **(3)**

$x + 2x = 9 \rightarrow x = 3,\ y = 6 \rightarrow$ **(3 ; 6)** ✓✓✓ (3)

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

$x + 4 = 2x + 1 \rightarrow \boldsymbol{x = 3, y = 7}$ ✓✓✓ (3)

**3** Solve: $x + y = 10$ and $x - y = 2$ **(3)**

Add: $2x = 12 \rightarrow \boldsymbol{x = 6, y = 4}$ ✓✓✓ (3)

**4** Solve: $2x + y = 7$ and $3x - y = 8$ **(3)**

Add: $5x = 15 \rightarrow \boldsymbol{x = 3, y = 1}$ ✓✓✓ (3)

**5** Solve: $3x + 2y = 12$ and $x - 2y = 4$ **(3)**

Add: $4x = 16 \rightarrow \boldsymbol{x = 4, y = 0}$ ✓✓✓ (3)

**6** Solve: $2x + 3y = 13$ and $4x - y = 5$ **(4)**

$\boldsymbol{x = 2, y = 3}$ ✓✓✓✓ (4)

**7** What does the solution represent graphically? **(1)**

The **point where the two lines cross.** ✓ (1)

**8** Three apples and two pears cost R16; one apple and one pear cost R6. Find each price. **(4)**

$3a + 2p = 16,\ a + p = 6 \rightarrow$ **apple R4, pear R2** ✓✓✓✓ (4)

**TOTAL: 24 marks**

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