4.3 Answers

GCSE Mathematics
Simultaneous Equations III

4.3.1 Solutions (4.2 Example)

$$x^2 + 6x + 8 = 0$$

$$(x + 4)(x + 2) = 0$$

Either $x + 4 = 0$ or $x + 2 = 0$

$$\therefore\ x = -4 \text{ or } x = -2$$

4.3.2 Solutions (4.3 Exercise)

(i)	$-5, -3$	**(ii)**	$-4, -1$
(iii)	$-7, -2$	**(iv)**	$-6, -3$
(v)	$-11, -4$	**(vi)**	$-8, -3$
(vii)	$-6, -5$	**(viii)**	$-9, -3$
(ix)	$-10, -5$	**(x)**	$-8, -4$

4.3.3 Solutions (4.4 Example)

$$x^2 - 6x - 55 = 0$$

$$(x - 11)(x + 5) = 0$$

Either $x - 11 = 0$ or $x + 5 = 0$

$$\therefore\ x = 11 \text{ or } x = -5$$

4.3.4 Solutions (4.5 Exercise)

(i)	$-2, 7$	**(ii)**	$-3, 7$
(iii)	$-2, 12$	**(iv)**	$-5, 6$
(v)	$-4, 10$	**(vi)**	$-8, 2$
(vii)	$-11, 3$	**(viii)**	$-10, 5$
(ix)	$-17, 1$	**(x)**	$-8, 5$
(xi)	$-17, 1$	**(xii)**	$-8, 5$