

(2a contd.)

$$(2) \quad 2x + y = 11$$

$$3 \times 2x + y = 11$$

$$6 + y = 11$$

$$y = 5$$

check

$$(1) \quad -x + y = 2 \quad = -3 + 5 = 2 \quad \checkmark$$

2b) Solve by elimination

$$(1) \quad x + y - z = 1$$

$$(2) \quad 8x + 3y - 6z = 1$$

$$(3) \quad -4x - y + 3z = 1$$

$$(2) \times 1 \quad 8x + 3y - 6z = 1$$

$$(3) \times 2 \quad -8x + 2y - 6z = 2$$

ADD $\therefore$

$$-8x + 8x + 2y + 3y - 6z - 6z = 3$$

$$5y - 12z = 3$$

$\leftarrow (4)$

$$(1) \times 4 \quad 4x + 4y - 4z = 4$$

$$(3) \times 1 \quad -4x - y + 3z = 1$$

$$\therefore 4x + 4y - 4z + (-4x) - y + 3z = 5$$

$$3y - z = 5$$

$\leftarrow (5)$

$$(4) \quad 5y - 12z = 3$$

$$(5) \quad 3y - z = 5$$