

$$2) a \quad B = (2 - \sqrt{5})^2 + 2(8 + \sqrt{20})$$

$$= 4 - 4\sqrt{5} + 5 + 16 + 2\sqrt{4 \times 5}$$

$$= 9 - 4\sqrt{5} + 16 + 4\sqrt{5}$$

Thus, $B = 25$. which is a natural number.

$$b. \quad C = - \frac{1.25 \times 8 \times 10^7 \times 10^{-4}}{4 \times 10^2}$$

$$= - 125 \times 10^{-2} \times 2 \times 10$$

$$= - 250 \times 10^{-1}$$

Thus, $C = -25$. which is an integer.

3) B and C are opposite numbers since their sum is equal to zero ($B + C = 25 + (-25) = 0$).

A and B are reciprocal numbers since their product is equal to 1 ($A \cdot B = \frac{1}{25} (25) = 1$).

* 3rd Exercise:

$$1) \quad X = 2\sqrt{75} + 3\sqrt{48} + 2\sqrt{27} - 2\sqrt{363}$$

$$= 2\sqrt{3 \times 5^2} + 3\sqrt{4 \times 3} + 2\sqrt{3 \times 3} - 2\sqrt{11 \times 3}$$

$$= 10\sqrt{3} + 12\sqrt{3} + 6\sqrt{3} - 22\sqrt{3}$$

Thus, $X = 6\sqrt{3}$ where $a = 6$.

$$Y = (2 + 3\sqrt{2})^2 + (2\sqrt{2} - 3)(2\sqrt{2} + 3)$$

$$= 4 + 12\sqrt{2} + 18 + 8 - 9$$

Thus, $Y = 21 + 12\sqrt{2}$. where, $b = 21$ & $c = 12$.

P 2.