

### Weekly Question (27 Mar)

Abby orders online a **total of 140 pieces** of clothing which comprises cardigans, blouses and dresses. Each cardigan has 3 buttons, each blouse has 4 buttons and each dress has 6 buttons. There are 623 buttons altogether. If there are **twice as many dresses as cardigans**, how many pieces of each type of clothing does Abby order?

### Solution:

Assume **all 140** pieces are blouses

$$140 \times 4 = 560 \text{ buttons}$$

$$623 - 560 = \mathbf{63 \text{ extra}} \text{ buttons}$$

1 group (3 pieces): **2 dresses + 1 cardigan** → 15 buttons

$$15 - (3 \times 4) = 3 \text{ extra buttons}$$

$$\mathbf{63} \div 3 = 21 \text{ groups} \rightarrow 21 \text{ cardigans}$$

$$21 \times \mathbf{2} = 42 \text{ dresses}$$

$$\mathbf{140} - 21 - 42 = 77 \text{ blouses}$$

**Ans: Abby orders 21 cardigans, 42 dresses and 77 blouses.**

$$\mathbf{Check: (21 \times 3) + (77 \times 4) + (42 \times 6) = 623 \text{ buttons}}$$