

Segment - A

Total voters $\rightarrow 200000$

% of voting $\rightarrow 60\% = 120000$

$$X \rightarrow 30\% = 36000$$

$$Y \rightarrow 30\% = 36000$$

$$Z \rightarrow 40\% = 48000$$

Segment B

Total voters $\rightarrow 250000$
% of voting $\rightarrow 70\% = 175000$

$$X \rightarrow 40\% = 70000$$

$$Y \rightarrow 30\% = 52500$$

$$Z \rightarrow 30\% = 52500$$

Segment - C

Total voters $\rightarrow 300000$

% of voting $\rightarrow 80\% = 240000$

$$X \rightarrow 30\% = 72000$$

$$Y \rightarrow 40\% = 96000$$

$$Z \rightarrow 30\% = 72000$$

Total votes = Segment A + B + C

$$X = 178000$$

$$Y = 184500 \rightarrow Y \text{ party won}$$

$$Z = 172500$$