



10 *pixel* = 0.235cm and considering 96 resolutions for conversion of pixel values to centimetres,

$$Z = \frac{bf}{d}$$

$$f = f_a = f_b = f_c = 10 \text{ pixel} = 0.235\text{cm}$$

$$d_{ab} = 5 \text{ pixel} = 0.132\text{cm}$$

$$d_{bc} = 4 \text{ pixel} = 0.106\text{cm}$$

$$Z = \frac{b_{ab} * f}{d_{ab}}$$

$$Z = \frac{20 * 0.235}{0.132} = 35.61 \text{ cm}$$

As, Cameras A, B and C all lies in same plane,

$$Z = \frac{b_{bc} * f}{d_{bc}}$$

$$35.61 = \frac{b_{bc} * 0.235}{0.106}$$

$$\mathbf{b_{BC} = 16.06 \text{ cm}}$$