

Problem (3)

$$\Delta z = (z + \Delta z) - z$$

$$\frac{Bf}{d + \Delta d} - \frac{Bf}{d}$$

$$Bf \left(\frac{1}{d + \Delta d} - \frac{1}{d} \right)$$

$$Bf \cdot \frac{\cancel{d} - d - \Delta d}{d(d + \Delta d)} \rightarrow -Bf \cdot \frac{\Delta d}{d(d + \Delta d)}$$