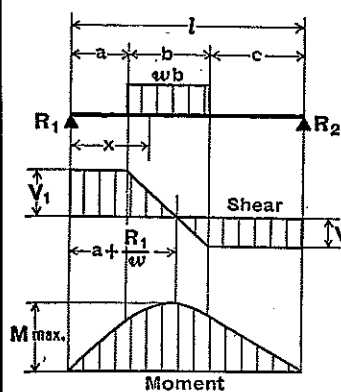


4. SIMPLE BEAM—UNIFORM LOAD PARTIALLY DISTRIBUTED



$$R_1 = V_1 \quad \left(\text{max. when } a < c \right) \quad . . . = \frac{wb}{2l} (2c + b)$$

$$R_2 = V_2 \quad \left(\text{max. when } a > c \right) \quad . . . = \frac{wb}{2l} (2a + b)$$

$$V_x \quad \left(\text{when } x > a \text{ and } < (a + b) \right) \quad . . . = R_1 - w(x - a)$$

$$M_{\max.} \left(\text{at } x = a + \frac{R_1}{w} \right) \quad = R_1 \left(a + \frac{R_1}{2w} \right)$$

$$M_x \quad \left(\text{when } x < a \right) \quad = R_1 x$$

$$M_x \quad \left(\text{when } x > a \text{ and } < (a + b) \right) \quad . . . = R_1 x - \frac{w}{2} (x - a)^2$$

$$M_x \quad \left(\text{when } x > (a + b) \right) \quad = R_2 (l - x)$$