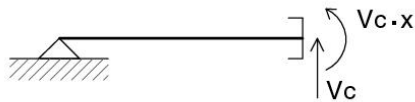
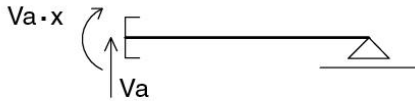
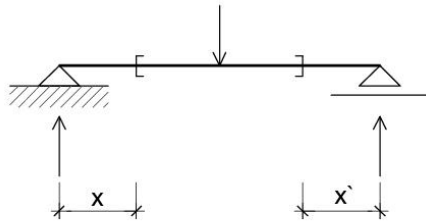
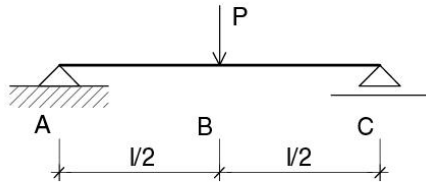
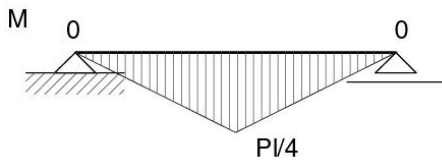
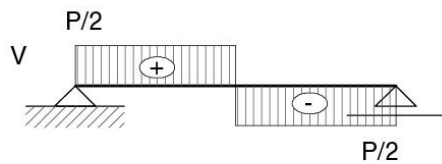
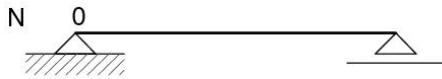


Resolução:

13



cut



deformed

$$x \ (0 - l/2)$$

$$N(x) = 0$$

$$V(x) = V_a = P/2 \text{ (sentido horário)}$$

$$M(x) = V_a \cdot x$$

$$M(0) = P/2 \cdot 0 = 0$$

$$M(l/2) = P/2 \cdot l/2 = Pl/4$$

(tracionando as fibras inferiores)

$$x' \ (0 - l/2)$$

$$N(x') = 0$$

$$V(x') = -V_c = -P/2 \text{ (sentido anti-horário)}$$

$$M(x') = V_c \cdot x'$$

$$M(0) = P/2 \cdot 0 = 0$$

$$M(l/2) = P/2 \cdot l/2 = Pl/4$$

(tracionando as fibras inferiores)

a concavidade da linha elástica é voltada para o lado comprimido da barra