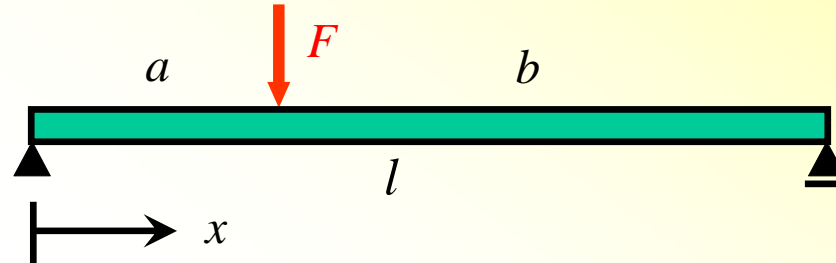
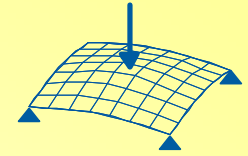


## Beispiel 1: Einzellast



$$q(x) = 0$$

Integrationen:

$$Q(x) = -\int q(x)dx + C_2 - F \langle x - a \rangle^0 = C_2 - F \langle x - a \rangle^0$$

$$M(x) = C_2 x - F \langle x - a \rangle^1 + C_3$$

RB:

$$M(x=0) = 0 \quad \Rightarrow \quad C_3 = 0$$

$$M(x=l) = 0 \quad \Rightarrow \quad C_2 l - F \langle l - a \rangle^1 + C_3 = 0 \quad \Rightarrow \quad C_2 = \frac{b}{l} F$$

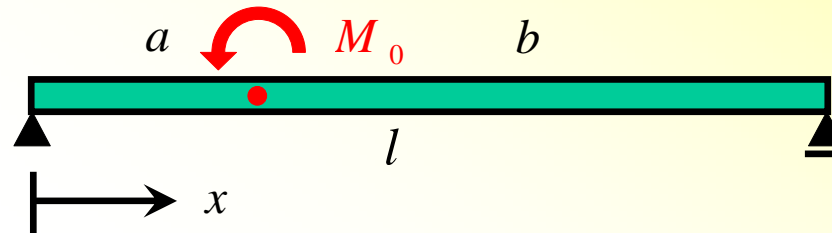
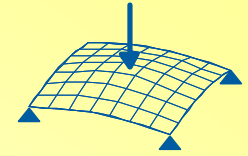
Lösungen:

$$Q(x) = \frac{b}{l} F - F \langle x - a \rangle^0$$

$$M(x) = \frac{b}{l} x - F \langle x - a \rangle^1$$

Grafische Darstellung siehe Bsp. in der Vorlesung oder Zeile 2 der Standardlastfälle!

## Beispiel 2: Einzelmoment



$$q(x) = 0$$

Integrationen:  $Q(x) = -\int q(x)dx + C_2 = C_2$

$$M(x) = C_2x + C_3 - M_0 \langle x - a \rangle^0$$

$$M(x=0) = 0 \quad \Rightarrow \quad C_3 = 0$$

RB:

$$M(x=l) = 0 \quad \Rightarrow \quad C_2l + C_3 - M_0 \langle l - a \rangle^0 = 0 \quad \Rightarrow \quad C_2 = \frac{M_0}{l}$$

Lösungen:

$$Q(x) = \frac{M_0}{l}$$

$$M(x) = \frac{M_0}{l}x - M_0 \langle x - a \rangle^0$$

Grafische Darstellung siehe Zeile 9 der Standardlastfälle!