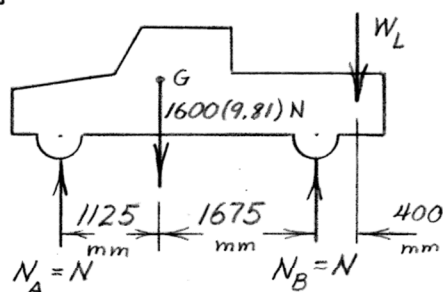


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$$\oplus \sum M_A = 0: 1600(9.81)(1.125) - N(2.80) + W_L(3.20) = 0$$

$$\uparrow \sum F = 0: 2N - 1600(9.81) - W_L = 0$$

Solve to obtain $N = 9050 \text{ N}$

$$W_L = 2400 \text{ N}$$

$$m_L = \frac{W_L}{g} = \frac{2400}{9.81} = \underline{244 \text{ kg}}$$

WILEY