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Calculations drop tower

Infographic

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geg:  $v_x = 110 \text{ km/h} \xrightarrow{3.6} 30.6 \text{ m/s}$   $h = 77.0 \text{ m}$   
 $g = 9.81 \frac{\text{N}}{\text{kg}}$

opl:  $E_{\text{kin}} = \frac{m \cdot v^2}{2} = \frac{m \cdot 30.6^2}{2}$   
 $= 468 \frac{\text{J}}{\text{kg}} = 47.0 \cdot 10 \frac{\text{J}}{\text{kg}}$

$$\begin{aligned} E_{\text{pot}} &= m \cdot g \cdot x \\ &= m \cdot 9.81 \cdot 77.0 \\ &= 755.4 \frac{\text{J}}{\text{kg}} = 76 \cdot 10 \frac{\text{J}}{\text{kg}} \end{aligned}$$