Tema II

$\alpha = 45°$ $v_0 = 20 \text{ m/s}$ $g = 9,8 \frac{m}{s^2}$

a) $m = 25 \text{ kg}$
   $D = 0,1 m$
   $x_{max} = 40,77$

b) $m = 50 \text{ kg}$
   $D = 0,4 m$
   $x_{max} = 40,77$

c) $m = 75 \text{ kg}$
   $D = 0,6 m$
   $x_{max} = 40,77$

d) $m = 100 \text{ kg}$
   $D = 0,7 m$
   $x_{max} = 40,77$

e) $m = 150 \text{ kg}$
   $D = 0,8 m$
   $x_{max} = 40,77$

f) $m = 200 \text{ kg}$
   $D = 1,0 m$
   $x_{max} = 40,77$

Formula (3)

$$h_{max} = \frac{v_0^2 \cdot (\sin(\alpha))^2}{2 \cdot g}$$

$\downarrow$

$h_{max} = 20,408 m$ #