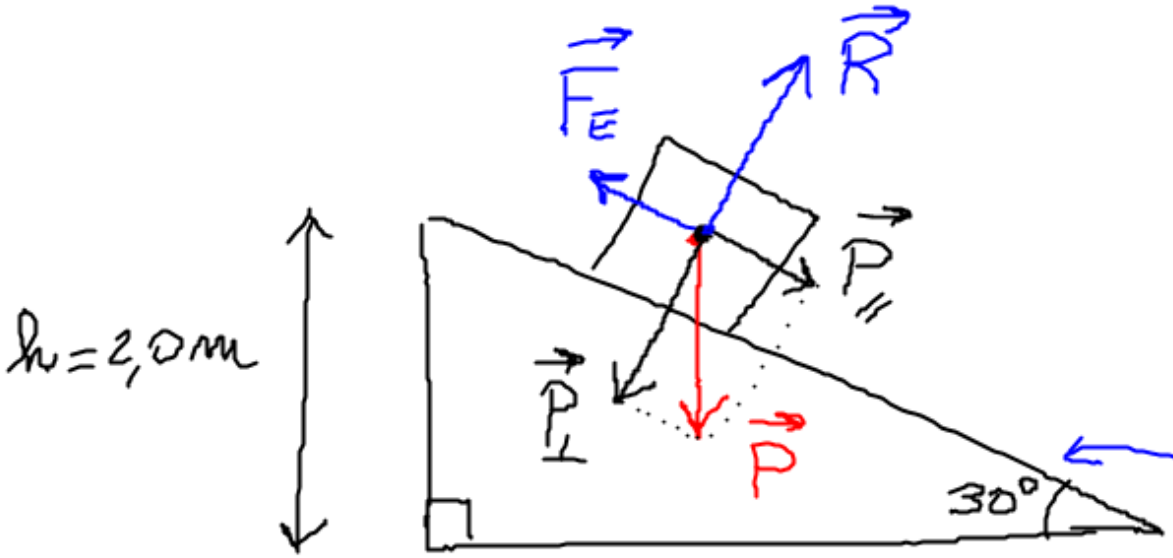


$P = 100\ N$

F_E = FORZA EQUILIBRANTE = ?

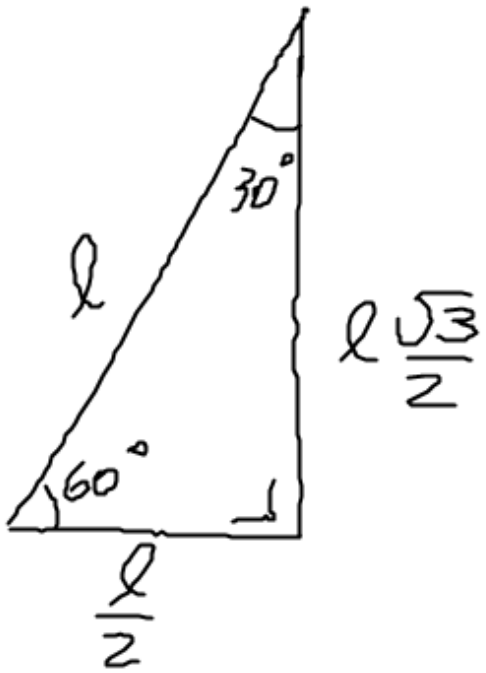
ATTRITO TRASCURABILE

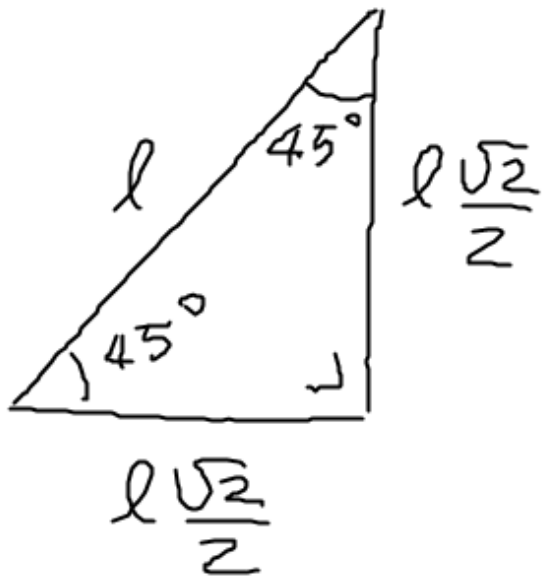
$l = 4{,}0\ m$

LUNGHEZZA DEL PIANO INCLINATO

$$F_E = P_{//} = P\,\frac{h}{l} = 100\ N\,\frac{2{,}0\ m}{4{,}0\ m} = 50\ N$$

OPPURE DIRETTAMENTE, PER SIMILITUDINE, $P_{//} = \frac{P}{2}$


30°
l
60°
$l\frac{\sqrt{3}}{2}$
$\frac{l}{2}$

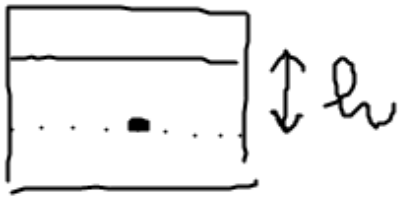

45°
l
45°
$l\frac{\sqrt{2}}{2}$
$l\frac{\sqrt{2}}{2}$

FLUIDI

- LEGGE DI STEVINO

PRESSIONE (Pa)

$$p = d\,h\,g$$



- PRINCIPIO DI PASCAL

- PRINCIPIO DI ARCHIMEDE

$$S = d\,g\,V$$

SPINTA DI ARCHIMEDE (N)

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$m = 3{,}2\ kg$

$p = 2{,}13\ bar$

$1\ bar = 10^5\ Pa$

$S = ?$
SUPERFICIE D'APPOGGIO

$$p = \frac{P}{S} \Rightarrow S = \frac{P}{p} = \frac{mg}{p} =$$

$$= \frac{(3{,}2\ kg)\left(9{,}8\ \frac{N}{kg}\right)}{2{,}13 \times 10^5\ Pa} = 1{,}47\ldots \times 10^{-4}\ m^2$$

$= 1{,}5\ cm^2$

ARCHIMEDE

PALLINA DI FERRO $d = 7,9 \times 10^3 \frac{kg}{m^3}$

DIAMETRO $2R = 18\ mm$

IMMERSA IN H_2O

$V_{SFERA} = \frac{4}{3}\pi R^3$

$d_{H_2O} = 10^3 \frac{kg}{m^3}$

PESO

$P_{PALLINA} = ?$

$S_{ARCHIMEDE} = ?$

$P_{PALLINA} = d\,V g = \left(7,9 \times 10^3\right)\left(\frac{4}{3}\pi\left(9,0 \times 10^{-3}\right)^3\right) \cdot (9,8)\ N =$

DEL F_E

$= 236411 \times 10^{-6}\ N =$

$\simeq 0,24\ N$

TROVARE LA SPINTA DI ARCHIMEDE

$3{,}0 \times 10^{-2}\ N$