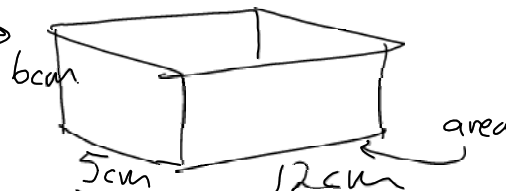


Dec 17



Volume (using math) $L \times W \times H$

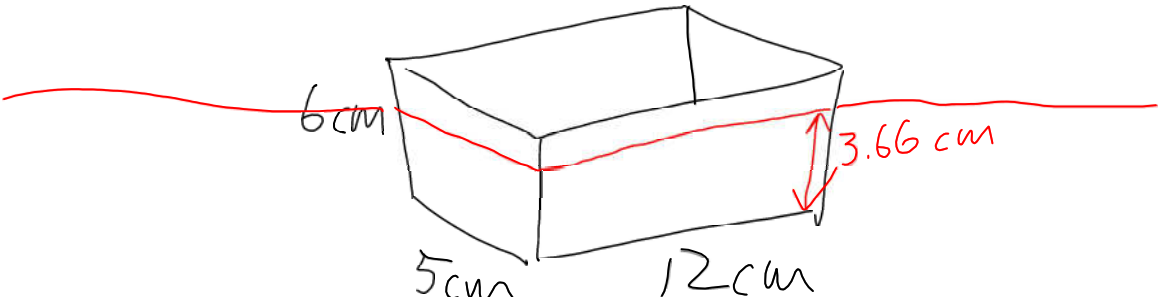
$$12\text{cm} \times 5\text{cm} \times 6\text{cm} = 360\text{cm}^3$$

360g is displaced

How much will it hold before it sinks?

Possible Payload = 360g
 minus mass of box - 150g

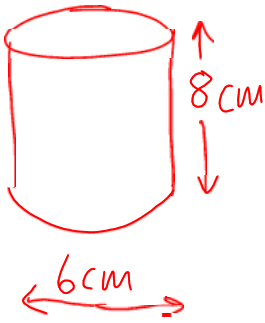
210g



360g
 it is already 220g

$$\frac{220}{360} = 61\% \text{ of } 6\text{cm}$$

3.66 cm



area =
 πr^2
 $\pi 3^2 = 28.27 \text{ cm}^2$

Volume = $8 \text{ cm} \times 28.27 \text{ cm}^2$
 $= 226.16 \text{ cm}^3$

226.16g - 65g = 161.16g

$\frac{65 \text{ g}}{226.16} = 28.7\%$

.287 x 8cm =

Think - it - over Problem



Ocean

River
if sinks!

why?

Think-it-over Problem

ship's captain is greedy
and overloads his
ship with cargo.

He travels in the ocean
and then goes up the river
where the two fish were
caught. Then the ship sinks
why?