In order to compute the center of gravity of composed figures we can use the Varignon's theorem. We need:

- Measure of the area of each component (elementary area).
- Total area $\mathrm{A}_{\text {tot }}$, which is obtained as sum of the elementary areas.
- Center of gravity of each elementary area.

$$
x_{C o G}=\frac{\sum_{i} A_{i} x_{C o G i}}{A_{t o t}}
$$

$$
y_{C o G}=\frac{\sum_{i} A_{i} y_{C o G i}}{A_{t o t}}
$$

Therefore, once we shaped shop D (see Craft Example in the slide's lesson), we can identify two possibles alternatives:



Case B
Blu area $=600, \operatorname{CoG}=(65,30)$
Yellow area $=200, \operatorname{CoG}=(75,10)$
Total Area $=600+200=800$
Xcog $=(600 * 65+200 * 75) / 800=67,5$
$Y \operatorname{cog}=(600 * 30+200 * 10) / 800=25$

