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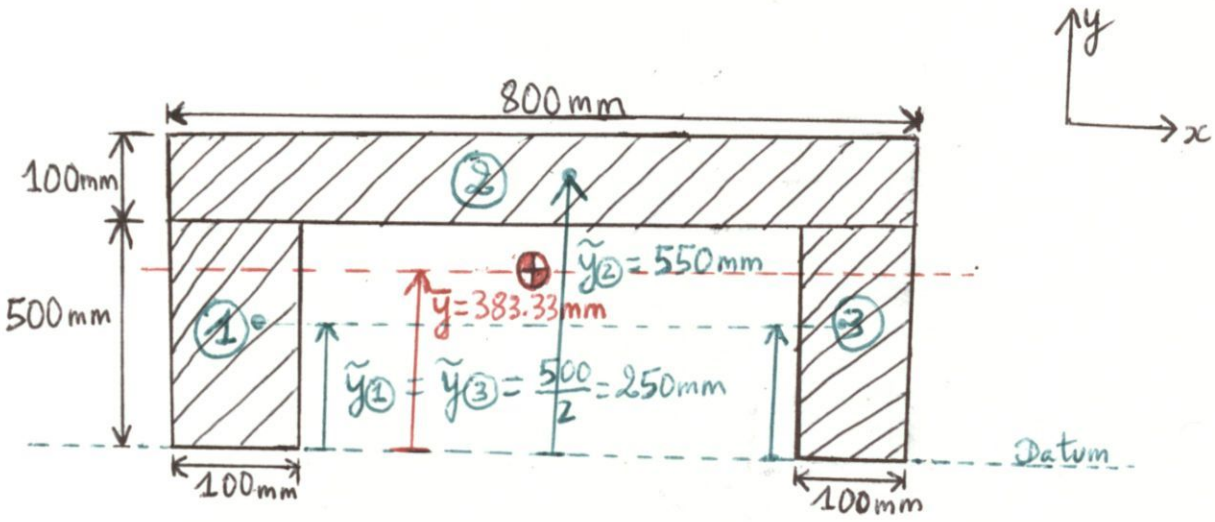

Section	b	h	$\tilde{y}$	A = bh	$\tilde{y}A$	$d = \lvert\tilde{y} - \bar{y}\rvert$
①	100 mm	500 mm	$\frac{500}{2}$ = 250mm	(100)(500) = 50,000 mm^2	(250)(50,000) = 12500000 = 12.5×10^6 mm^3	383.33-250 = 133.33 mm
②	800mm	100 mm	500+$(\frac{100}{2})$ = 550mm	(800)(100) = 80,000 mm^2	(550)(80,000) = 44×10^6 mm^3	550-383.33 = 166.67 mm
③	100 mm	500 mm	$\frac{500}{2}$ = 250mm	(100)(500) = 50,000 mm^2	(250)(50,000) = 12.5×10^6 mm^3	383.33-250 = 133.33 mm
			$\sum A$ =	180,000 mm^2	$\sum \tilde{y}A = 69\times10^6$ mm^3	

$$\bar{y} = \frac{\sum \tilde{y}A}{\sum A} = \frac{69\times10^6\ mm^3}{180{,}000\ mm^2} = 383.33\ mm$$

$$I_{①} = \frac{bh^3}{12} + Ad^2 = \frac{(100)(500)^3}{12} + (50{,}000)(133.33)^2 = 1{,}930{,}111{,}167\ mm^4$$

$$I_{②} = \frac{bh^3}{12} + Ad^2 = \frac{(800)(100)^3}{12} + (80{,}000)(166.67)^2 = 2{,}288{,}977{,}779\ mm^4$$

$$I_{③} = I_{①} = 1930111167\ mm^4$$

$$I_{x(tot)} = I_{①} + I_{②} + I_{③} = 1930111167 + 2288977779 + 1930111167 = 6{,}149{,}200{,}113\ mm^4 = 6.149\times10^{-3}\ m^4$$