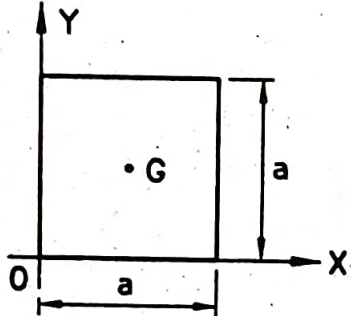
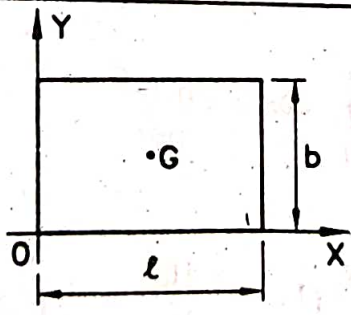
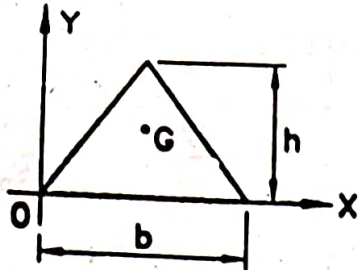
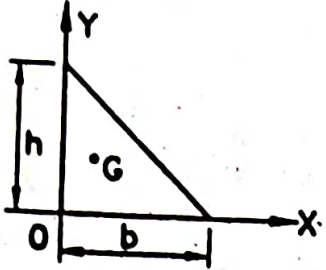
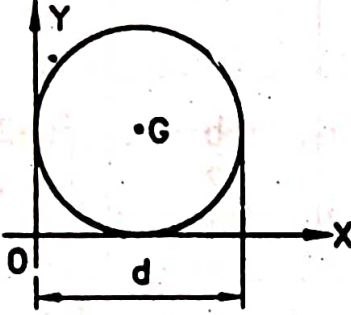
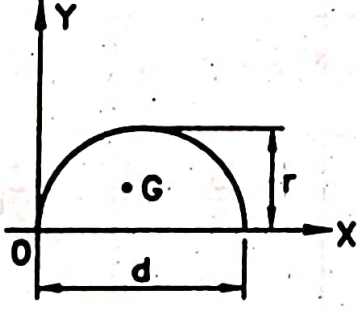
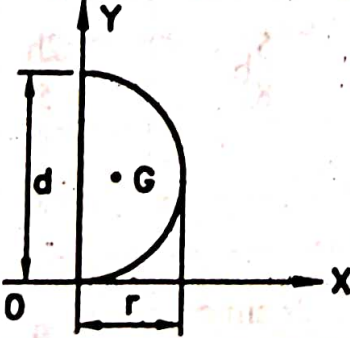
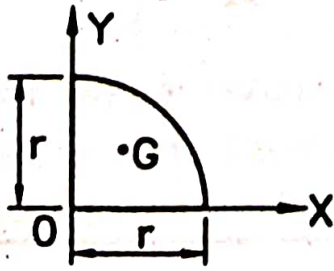
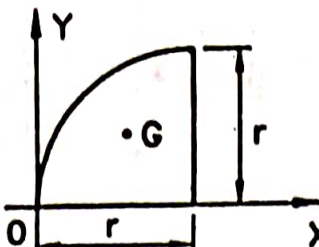
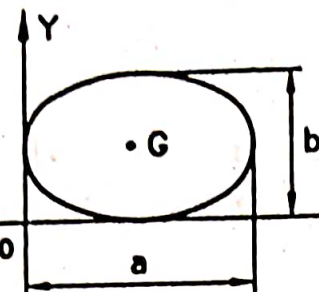
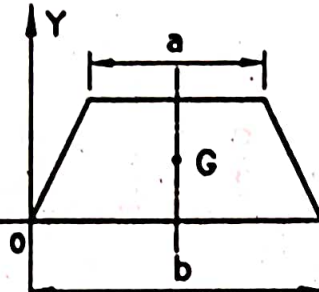
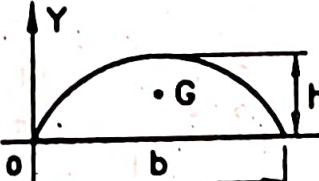
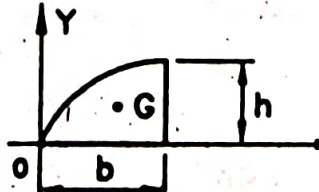
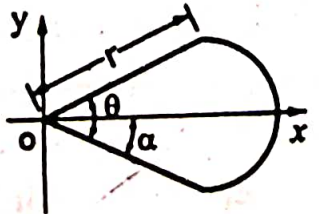


Table 12.1 Centroid of simple plane figures

SI No.	Name	Shape	\bar{x}	\bar{y}	Area
1.	Square		$\frac{a}{2}$	$\frac{a}{2}$	a^2
2.	Rectangle		$\frac{l}{2}$	$\frac{b}{2}$	lb

3.	Triangle (Isosceles)		$\frac{b}{2}$	$\frac{h}{3}$	$\frac{1}{2}bh$
4.	Triangle (Right-angled)		$\frac{b}{3}$	$\frac{h}{3}$	$\frac{1}{2}bh$
5.	Circle		$\frac{d}{2}$	$\frac{d}{2}$	$\frac{\pi d^2}{4}$
6.	Semi-circle		$\frac{d}{2}$	$\frac{4r}{3\pi}$	$\frac{1}{2} \times \frac{\pi d^2}{4}$
7.	Semi-circle		$\frac{4r}{3\pi}$	$\frac{d}{2}$	$\frac{1}{2} \times \frac{\pi d^2}{4}$
8.	Quadrant		$\frac{4r}{3\pi}$	$\frac{4r}{3\pi}$	$\frac{1}{4} \times \pi r^2$

9.	Quadrant		$\left(r - \frac{4r}{3\pi}\right)$	$\frac{4r}{3\pi}$	$\frac{1}{4} \times \pi r^2$
10.	Ellipse		$\frac{a}{2}$	$\frac{b}{2}$	$\frac{\pi ab}{4}$
11.	Trapezium		$\frac{b}{2}$	$\left(\frac{b+2a}{b+a}\right)\frac{h}{3}$	$\frac{1}{2}(a+b)h$
12.	Parabola		$\frac{b}{2}$	$\frac{2}{5}h$	$\frac{2}{3}bh$
13.	Semi-parabola		$\frac{5}{8}b$	$\frac{2h}{5}$	$\frac{2}{3}bh$
14.	Sector of circle	 <p style="text-align: center;">$\theta = 2\alpha$</p>	$\frac{2r \sin \alpha}{3\alpha}$	0	$\frac{\theta}{360} \times \pi r^2$