

$$x - 2 \log|x+1| + C \quad \underline{\text{Ans}}$$

Solⁿ 3

$$(i) \int (3x+7)^7 dx$$

$$\text{Let } t = 3x+7$$

Differentiate both side w.r.t. x

$$\frac{dt}{dx} = 3$$

$$\frac{dt}{3} = dx$$

Now,

$$\Rightarrow \int t^7 \frac{dt}{3}$$

$$\Rightarrow \frac{1}{3} \int t^7 dt$$

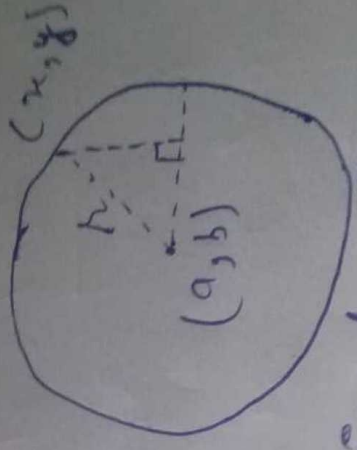
$$\Rightarrow \frac{1}{3} \times \frac{t^8}{8} + C$$

$$\Rightarrow \frac{t^8}{24} + C \quad \underline{\text{Ans}}$$

(ii) The Equation of a circle with centre (a, b) and radius r is $(x-a)^2 + (y-b)^2 = r^2$.

For example, the Equation of a circle with centre $(3, 0)$ and radius 4 units is $(x-3)^2 + y^2 = 16$.

The General form of the Equation of a Circle is $x^2 + y^2 + 2gx + 2fy + c = 0$



Sol m 4:-