W: www.vsajaipur.com | E:vsajaipur@gmail.com M. : +91 9460356652,8058999828
Add. : 84, Krishna Vihar, Behind Narayan Niwas, Gopalpura Bypass, Jaipur - 302015 /vsajaipur | $\triangle$ /vsajaipur

Class $\mathbf{- 1 2}^{\text {th }}$
Worksheet-30

Chapter-7

Find $\frac{d y}{d x}$, when

## Subject Maths

Differentiation

1. (a) $x=a \sec t, y=b \tan t$
(b) $x=\log t+\sin t, y=e^{t}+\cos t$
2. 

(a) $x=\log t, y=e^{t}+\cos t$
(b) $x=a \cos \theta, y=b \sin \theta$
3. (a) $x=\cos \theta-\cos 2 \theta, y=\sin \theta-\sin 2 \theta$
(b) $x=\theta-\sin \theta, y=a(1+\cos \theta)$
4. (a) $x=\frac{\sin ^{3} t}{\sqrt{\cos 2 t}}, y=\frac{\cos ^{3} t}{\sqrt{\cos 2 t}}$
(b) $x=a\left(\cos t+\log \tan \frac{t}{2}\right), y=a \sin t$
5.
(a) $x=\sqrt{\sin 2 \theta}, y=\sqrt{\cos 2 \theta}$
(b) $x=a \cos ^{3} t, y=a \sin ^{3} t$
6. If $x^{3}+y^{3}=t-\frac{1}{t}$ and $x^{6}+y^{6}=t^{2}+\frac{1}{t^{2}}$, then prove that $x^{4} y^{2} \frac{d y}{d x}=1$

