- Sec 11.2 :-

8 $y = e^{x^2-1}$

find y'.

$\longrightarrow y' = (2x)e^{x^2-1}$

12 $y = e^{\sqrt{x^2-9}}$

$\longrightarrow y' = \frac{1}{2}(x^2-9)^{-\frac{1}{2}}(2x)\, e^{\sqrt{x^2-9}}$

$= \frac{x}{\sqrt{x^2-9}}\, e^{\sqrt{x^2-9}}$

14 $y = e^3 + e^{\ln x}$

$y = e^3 + x$

$\longrightarrow y' = 0 + 1 = 1$

24 $y = e^{x^4} - (e^x)^4 = e^{x^4} - e^{4x}$

$\longrightarrow y' = 4x^3 e^{x^4} - 4e^{4x}$