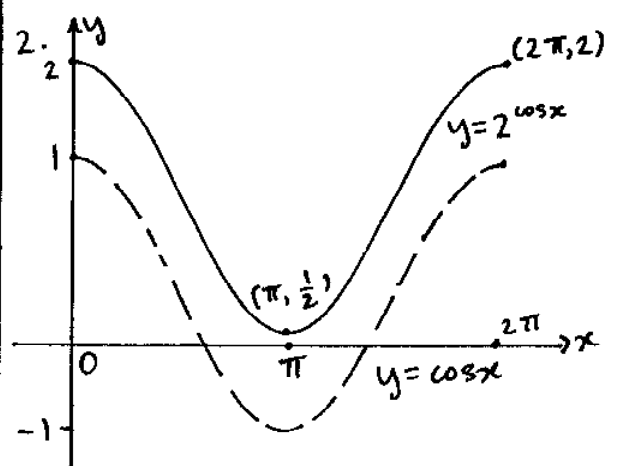
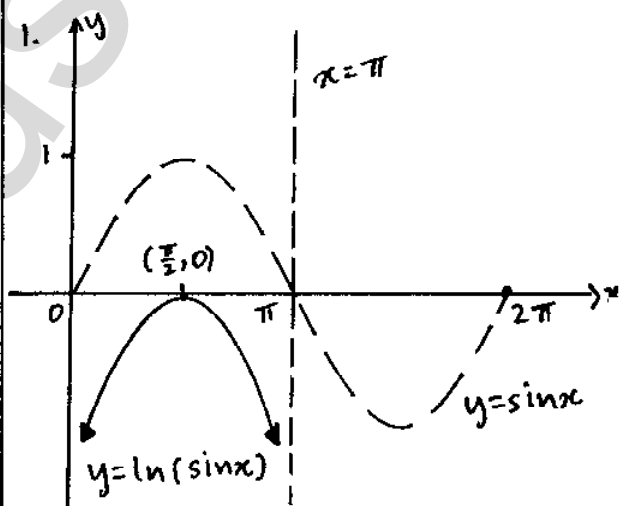
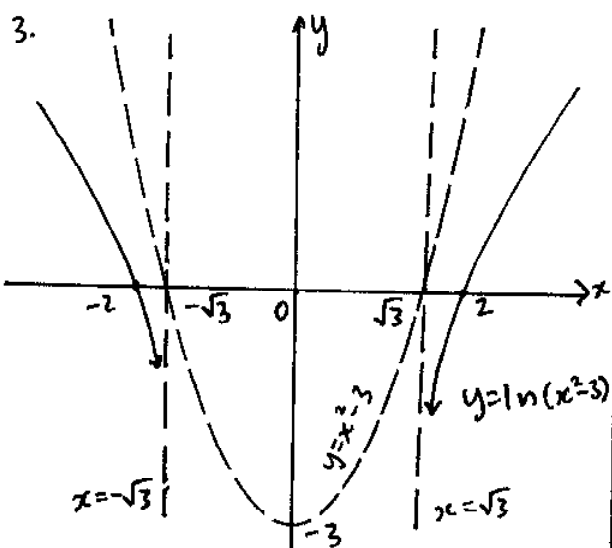
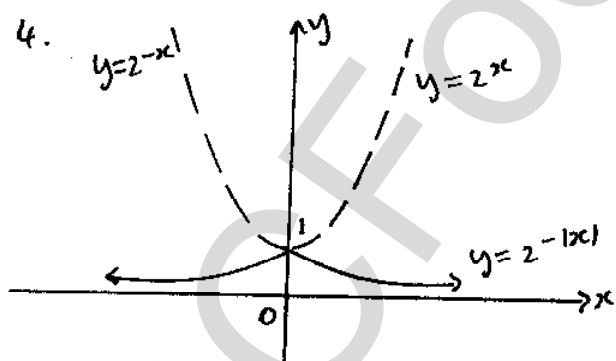


EXERCISE : 1.8





$f(x) = \ln(x^2 - 3)$
 $\therefore f(-x) = \ln[(-x)^2 - 3] = \ln(x^2 - 3)$
 $\therefore f(-x) = f(x)$
 $\therefore f(x)$ is an even function. Also, we can see that it is symmetrical on the y-axis to further verify this property.



$f(x) = 2^{-|x|}$
 $\therefore f(-x) = 2^{-|-x|} = 2^{-|x|}$ (since $|-x| = |x|$)
 $\therefore f(x) = f(-x)$
 $\therefore f(x)$ is an even function. Also, we can see that it is symmetrical on the y-axis to further verify this property.

5. $f(x) = g[h(x)]$
 $\therefore f(-x) = g[h(-x)] = g[h(x)]$
 (since $h(x)$ is even $\therefore h(-x) = h(x)$)
 $\therefore f(-x) = f(x)$
 $\therefore f(x)$ is an even function.