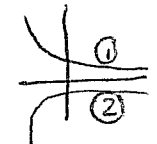


BONUS - Exponential GRAPH

QUESTION : sketch $y = Ab^{-x} + C$
where $A > 0$
 $b > 1$
 $C < 0$

SOLUTION :

$$\begin{aligned}y &= Ab^{-x} + C \\&= A\left(\frac{1}{b^x}\right) + C \\&= A\left(\frac{1}{b}\right)^x + C\end{aligned}$$

- since $b > 1$
then $\frac{1}{b} < 1$ graph is  or
- since $C < 0$ the asymptote is shifted downwards
- since $A > 0$ then the graph is of type ①

Y-intercept when $x=0$

$$y = A\left(\frac{1}{b}\right)^0 + C = A + C$$

