

APOLLO

Exponential Function

FBISE Mathematics Class 12 (HSSC-II)

Domain A: Numbers and Algebra

3 questions | questions

Original FBISE question crops. National Curriculum 2022-23 topic.

$(12 \times 4 =$

Q.2	Question	Mark
i.	Draw the graph of the function $\log_3 y = x$	4

OR	A company's stock price $S(t)$ (in dollars) is modeled by the function: $S(t) = 50 + 20e^{-0.1t}$, where t is the time in years; a. Find the initial stock price. b. Determine the stock price after 5 years. c. Find the limit of $S(t)$ as $t \rightarrow \infty$. d. Determine the time at which the stock price reaches 60 dollars.	8
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Find domain and range of the following functions: (a) $f(x) = e^{x-2} + 3$; (b) $g(x) = \ln(x + 5)$ Write your answers in interval notation.	04
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