

PART 1 - MATHEMATICS

Topic : Relations and functions (class 12)

SECTION-B : (Maximum Marks : 4)

- This section contains **ONE** question.
- The answer to each question is a **NON-NEGATIVE INTEGER**.
- For each question, enter the correct integer corresponding to the answer in the place designated to enter the answer.
- Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If **ONLY** the correct answer is entered;

Zero Marks : 0 In all other cases.

1. Let $f: \mathbb{R} \rightarrow \mathbb{R}$ be a function such that $f(x + y) = f(x) + f(y)$ for all $x, y \in \mathbb{R}$, and $g: \mathbb{R} \rightarrow (0, \infty)$ be a function such that $g(x + y) = g(x)g(y)$ for all $x, y \in \mathbb{R}$. If $f\left(\frac{-3}{5}\right) = 12$ and $g\left(\frac{-1}{3}\right) = 2$, then the value of $\left(f\left(\frac{1}{4}\right) + g(-2) - 8\right)g(0)$ is _____.

[JEE Advanced 2024 Paper 2]

Scan or tap for the
full solution

Space for Rough Work

**JEE ADVANCED RELATIONS AND FUNCTIONS (CLASS 12) —
FUNCTIONAL EQUATIONS, EVEN–ODD AND PERIODIC
FUNCTIONS (JEE) — PYQS**

Test Pattern : **JEE (Advanced)**

ANSWER KEY

SECTION-B

[illegible]