

PART 1 - MATHEMATICS

Topic : Vector algebra

SECTION-B : (Maximum Marks : 4)

This section contains **ONE** question.

The answer to each question is a **NUMERICAL VALUE**.

For each question, enter the correct numerical value of the answer (in decimal notation, truncated / rounded-off to the **SECOND DECIMAL PLACE**; e.g. 6.25, 7.00, -0.33, -.30, 30.27, -127.30) 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. For any two points M and N in the XY-plane, let $\vec{MN}$ denote the vector from M to N, and $\vec{0}$ denote the zero vector. Let P, Q and R be three distinct points in the XY-plane. Let S be a point inside the triangle ΔPQR such that

$$\vec{SP} + 5\vec{SQ} + 6\vec{SR} = \vec{0}.$$

Let E and F be the mid-points of the sides PR and QR, respectively. Then the value of $\frac{\text{length of the line segment EF}}{\text{length of the line segment ES}}$ is _____.

[JEE Advanced 2025 Paper 1]

Scan or tap for the
full solution



Space for Rough Work

**JEE ADVANCED VECTOR ALGEBRA — SECTION
FORMULA (POSITION VECTORS) — PYQS**

Test Pattern : JEE (Advanced)

ANSWER KEY**SECTION-B**

Ques.	1									
Ans.	1.15 to 1.25									