$$A = 8l + 12j - 8k$$
$$B = 9l - 3k - 2k$$
$$C = 8l + 17j - 7k$$

Find

Question

1.

$$A \times B = \begin{vmatrix} l & j & k \\ 8 & 12 & -8 \\ 9 & -3 & -2 \end{vmatrix} = (-24 - 24)l - (-16 + 72)j + (-24 - 108)k = -48l - 56j - 132k$$

Question

2.

$$C \times [A \times B] = \begin{vmatrix} l & j & k \\ 8 & 17 & -7 \\ -48 & -56 & -132 \end{vmatrix} = (-2244 - 392)l - (-1056 - 336)j + (-448 + 816)k =$$

$$= -2636l + 1392j + 368k$$

Question

3.

$$D \times [\, C \times (A \times B)]$$

It is impossible to compute because D was not given.

Question

4.

$$A\{D \times (A \times B)\}$$

It is impossible to compute because D was not given.

Question

5.

$$C \cdot D$$

It is impossible to compute because D was not given.

Question

6.

$$A \cdot B = 8 \cdot 9 - 12 \cdot 3 + 8 \cdot 2 = 52$$

Question

7.

$$|D|$$

It is impossible to compute because D was not given.

Question

8.

$$|A \times D|$$

It is impossible to compute because D was not given.

Question

9.

$$|D \times B|$$

It is impossible to compute because D was not given.

Question

10.

$$(A \times B) \cdot (C \times D)$$

It is impossible to compute because D was not given.