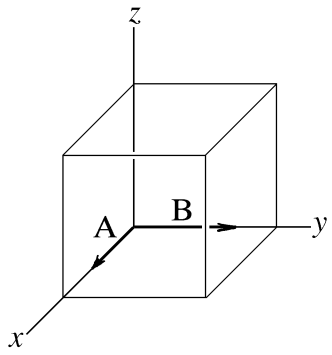
Vector-Multiplication Exercise

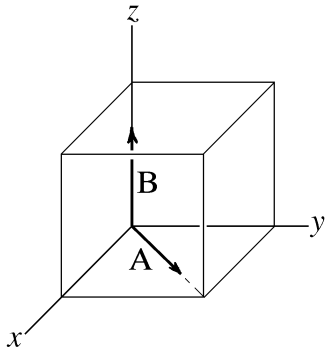
For vectors **A** and **B** shown below, assume that the magnitude of **A** is *a* and the magnitude of **B** is *b*. For each of parts 1, 2, 3, and 4, showing a relationship between the vetors **A** and **B**:

(a) write each of the vectors **A** and **B** in **i j k** form
(a) calculate the dot product **A**·**B** from the definition and then by multiplying **A** and **B**.
(b) calculate the cross product (magnitude and direction) **A** × **B** from the definition and then by multiplying **A** and **B**.

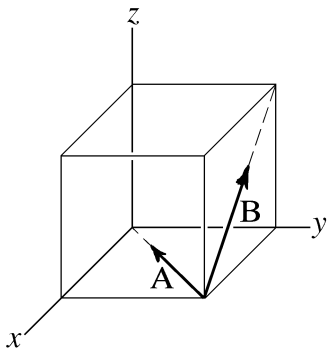
1.



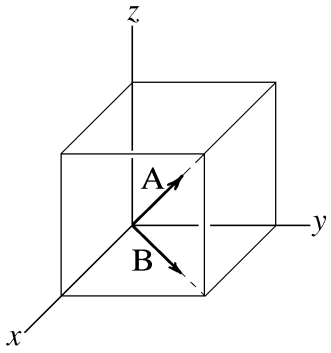
2.



3.



4.



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