

Exercise: Chapter 2

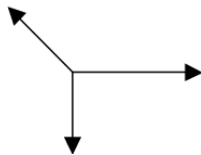
Answer ALL questions. (15 Marks)

1. If cross product of two non-zero vectors is zero, then___

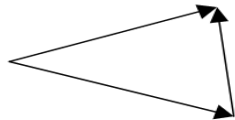
- (a) Vectors are in the same direction
- (b) Vectors are perpendicular
- (c) Vectors are opposite
- (d) Both (a) and (b)

2. Determine the correct vector diagrams that show the resultant of the three (3) vectors are equal to zero?

(a)



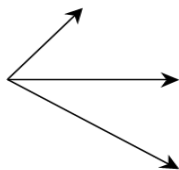
(b)



(c)



(d)



3. Determine the angle between those two vectors: $\mathbf{K}=8\mathbf{i}+3\mathbf{j}+5\mathbf{k}$ and $\mathbf{L}=8\mathbf{i} + 3\mathbf{j} -5\mathbf{k}$
- (a) zero
 - (b) 45°
 - (c) 180°
 - (d) 90°
4. A MH311 flies from KLIA to Dubai, at a distance of 280 km, 20.0° north of east. After that, the plane flies to USA, which is 190 km, 30.0° west of north from Dubai. Find the magnitude and direction of the displacement from USA to the KLIA.
- (8 Marks)
5. Aisyah travels by bicycle at 5 km towards east, 4 km towards north, and finally 10 km towards east. Determine the total traveled distance and resultant displacement.
- (4 Marks)

Answer:

- 1. C
- 2. C
- 3. D
- 4. 309.87 km, 57.14°
- 5. 15.5 km