Solution Book of Mathematic

Ssnior 2 Part I

MELVIN CHIA

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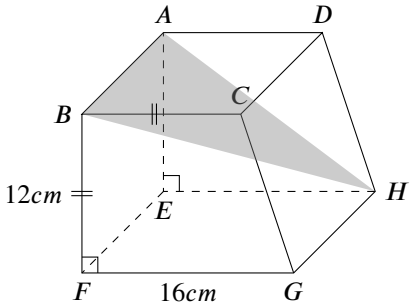
Contents

1. The diagram below shows a right prism, its base $BCGF$ is a trapezoid, $BC = BF = 12cm$, $FG = 16cm$. The lateral face $EFGH$ is a square, and is perependicular to another lateral face $ABFE$. Find:

   (a) The angle formed by plane $CDHG$ and plane $EFGH$.

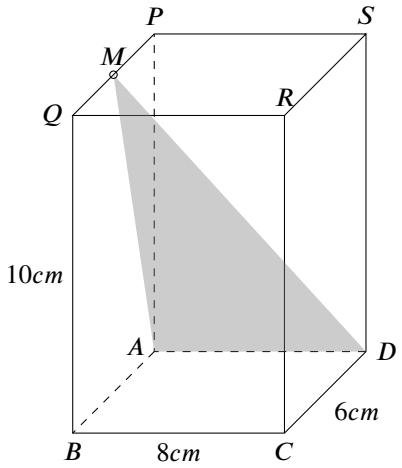
   (b) The angle formed by plane ABH and plane $ABFE$.



2. In the cuboid shown below, $BC = 8cm$, $CD = 6cm$, $BQ = 10cm$. Given that M is the midpoint of PQ. Find:

   (a) The angle formed by line MD and plane $PQBA$.

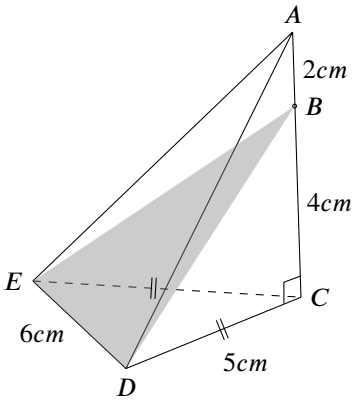
   (b) The angle formed by plane AMD and plane $ABCD$.



3. The diagram below shows a pyramid with an isoceles triangle base. Given that $CD = CE = 5cm$, $ED = 6cm$, ACD is a right-angled triangle, B is a point on AC, $AD = 2cm$, $BC = 4cm$. Find:

   (a) The angle formed by plane BDE and plane CDE.

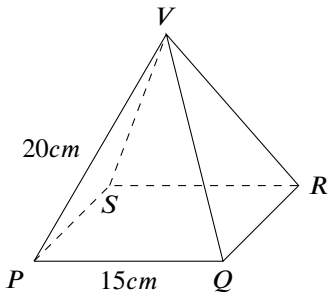
   (b) The angle formed by the plane ADE and CDE.



4. The diagram below shows a regular pyramid with a square base. Given that $PQ = 15cm$, $PV = 20cm$. Find:

   (a) The angle formed by linee PV and plane $PQRS$.

   (b) The angle formed by the lateral faces and the base of the pyramid.



5. The diagram below shows a right pyramid with lateral edges of $13cm$. Its base $ABCD$ is a rectangle with length of $12cm$ and width of $10cm$. Find:

   (a) The angle formed by plane VBC and plane $ABCD$.

   (b) The angle formed by plane VCD and plane $ABCD$.