Understanding Three Dimensional Shapes Ex 16.1 Q6

Answer :

The four diagonals of the cuboid are CE, BH, AG and DF.

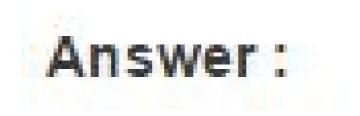Understanding Three Dimensional Shapes Ex 16.1 Q7

Answer :

(i) The face parallel to BFGC is AEHD.
(ii) The faces adjacent to BFGC are BCDA, DCGH, ABFE and EFGH.
(iii) GF, GH, CG

Understanding Three Dimensional Shapes Ex 16.1 Q8

Answer :

(i) eight

(ii) twelve

(iii) six

(iv) four

(v) cube

(vi) edge

(vii) adjacent faces

(viii) three

(ix) cube

(x) vertex, or corner

Understanding Three Dimensional Shapes Ex 16.1 Q9

Answer :

(i) T

(ii) F

Understanding Three Dimensional Shapes Ex 16.1 Q10

Answer :

(i) UVWX is the base of the cuboid.

(ii) The lateral faces for the base UVWX are UXSP, QVWR, PQVU and SXWR.

(iii) Any one pair of opposite faces among the lateral faces of the base are PQVU and SXWR, or UXSP and QVWR.
There are two pairs of opposite faces among the lateral faces of the base of the cuboid.

(iv) The faces, which have one of the vertex as X, are UVWX, UXSP and SXWR.
The faces, which have VW as side, are QVWR and UVWX.

v) Edges which meet at P are UP, SP, and PQ.
Faces which meet at vertex P are PQRS, UPSX and PQVU.

Understanding Three Dimensional Shapes Ex 16.1 Q11

Answer :

(i) The edges of 4 cm length are AD, EH, BC, and FG.
The edges of 5 cm length are AB, EF, CD and GH.
(ii) The faces having dimensions of 5 cm x 4 cm would have an area of 20 cm^2. And such faces are ABCD and EFGH.
(iii) ABCD and EFGH have the largest area of 20 cm^2.
(There are three pairs of opposite faces of equal area. The area of opposite faces are: 3 x 4 cm^2, 4 x 5 cm^2, and 3 x 5 cm^2.
And among these, 4 x 5 cm^2 is the largest.

(iv) The faces having sides of 3 cm and 4 cm respectively would have the diagonal of 5 cm. (As hypotenuse of a right- angles triangle is: $3^2 + 4^2 = 5^2$). Therefore, the faces ADHE and BCGF have the diagonal of 5 cm.
(v) The base has q dimension of 4 cm x 5 cm, so area of abase is: 4 x 5 = 20 cm^2.

(vi) No, all lateral faces do not have the same area. The two lateral faces have an area of 3 x 5 = 15 cm^2 and rest of the two lateral faces have an area of 3 x 4 = 12 cm^2.

*********** END *********