EXERCISE 5.1 - Question No. 1

Find the complement of each of the following angles:

EXERCISE 5.1 - Question No. 2

Find the supplement of each of the following angles:

EXERCISE 5.1 - Question No. 3

Identify which of the following pairs of angles are complementary and which are supplementary

EXERCISE 5.1 - Question No. 4

Find the angle which is equal to its complement

EXERCISE 5.1 - Question No. 5

Find the angle which is equal to its supplement

EXERCISE 5.1 - Question No. 6

In the given figure, ?1 and ?2 are supplementary angles. If ?1 is decreased, what changes should take place in ?2 so that both the angles still remain supplementary.

EXERCISE 5.1 - Question No. 7

Can two angles be supplementary if both of them are: (i) acute? (ii) obtuse? (iii) right?

EXERCISE 5.1 - Question No. 8

An angle is greater than 45. Is its complementary angle greater than 45 or equal to 45 or less than 45?

EXERCISE 5.1 - Question No. 9

In the adjoining figure: (i) Is ?1 adjacent to ?2? (ii) Is ? And ?EOD form a linear pair? (iv) Are ? AOC adjacent to ?AOE? (iii) Do ? COE BOD and ?DOA supplementary? (v) Is ?1 vertically opposite to ?4? (vi) What is the vertically opposite angle of ?5?

EXERCISE 5.1 - Question No. 10

Indicate which pairs of angles are: (i) Vertically opposite angles.

(ii) Linear pairs.

EXERCISE 5.1 - Question No. 11

In the following figure, is 1 adjacent to 2? Give reasons

EXERCISE 5.1 - Question No. 12

Find the values of the angles x, y, and z in each of the following:

EXERCISE 5.1 - Question No. 13

Fill in the blanks: (i) If two angles are complementary, then the sum of their measures is _____. (ii) If two angles are supplementary, then the sum of their measures is _____. (iii) Two angles forming a linear pair are _____. (iv) If two adjacent angles are supplementary, they form a _____. (v) If two lines intersect at a point, then the vertically opposite angles are always _____. (vi) If two lines intersect at a point, and if one pair

of vertically opposite angles are acute angles, then the other pair of vertically opposite angles are _____.

EXERCISE 5.1 - Question No. 14

In the adjoining figure, name the following pairs of angles. (i) Obtuse vertically opposite angles (ii) Adjacent complementary angles (iii) Equal supplementary angles (iv) Unequal supplementary angles (v) Adjacent angles that do not form a linear pair

EXERCISE 5.2 - Question No. 1

State the property that is used in each of the following statements?

(i) If $\angle a$ | | $\angle b$, then and amp; ; /_1= /_5.$(ii) If$ /_4= /_6,$then$ a||b.$(iii) If$ /_4+ /_ 5 -180^$then$a||b.`

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EXERCISE 5.2 - Question No. 2

In the adjoining figure, identify (i) the pairs of corresponding angles. (ii) the pairs of alternate interior angles. (iii) the pairs of interior angles on the same side of the transversal. (iv) the vertically opposite angles.

EXERCISE 5.2 - Question No. 3

In the adjoining figure, $p \mid\mid q$. Find the unknown angles.

EXERCISE 5.2 - Question No. 4

Find the value of x in each of the following figures if $l \mid\mid m$.

EXERCISE 5.2 - Question No. 5

In the given figure, the arms of two angles are parallel. If ? , then find (i) ?DGC (ii) ?DEF

EXERCISE 5.2 - Question No. 6

In the given figures below, decide whether l is parallel to m.

SOLVED EXAMPLES - Question No. 1

In Fig (5.18) identify: (i) Five pairs of adjacent angles. (ii) Three linear pairs. (iii) Two pairs of vertically opposite angles