
APPENDICES

CONSTRUCTIVIST LEARNING SITUATION

Concept I : Concept of an angle.

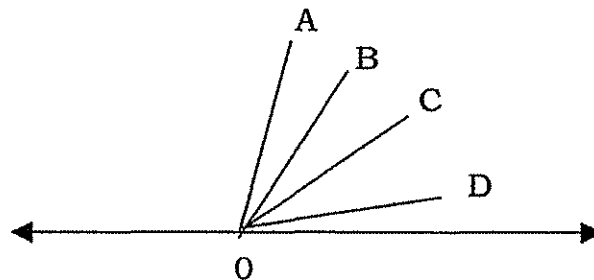
Situation 1 :

Objectives: Students should be able to-

- Distinguish between vertical position and tilted position of any rod.
- Get the feel for an angle by change in angle.

Procedure:

- 1 Researcher has two rod and affixes the blue rod vertically. She then, affixes the yellow rod at some other point on in a slightly tilted position and asks the class about the way the rods are fixed.
- 2 Having ensured that the class agrees that the blue rod is straight (i.e. vertical) and yellow rod is oblique (i.e. tilted), the researcher then, fixes the red rod a little more tilted and once again asks the same question.
- 3 The researcher makes sure that this time the class claims the blue rod to be straight and the remaining two rods to be oblique. She, then, asks them to identify the rod, which is more oblique.
- 4 Having ensured that the class considers the red rod to be more oblique than yellow rod, the researcher draws the following diagram on the chalkboard.



The asks the following questions.

- Which of the rod is not tilted?
 - Which rods are tilted?
 - Which rod is maximum tilted?
 - Which rod is minimum tilted?
- 5 The researcher makes sure that the class responds and gives correct answers to all these question. She, then, gives the one-rod in a vertical position and keeps one of the pointers in the horizontal position to the students (one by one). He calls the students to keep the other pointer in a tilted position by rotating it.
- 6 Having ensured that the class observes whatever these students did, the researcher asks the class whether, in the whole process, the length of the pointer is changed . It is most likely that the class will unanimously agree that there was no change in length.
- 7 At this juncture, the researcher points out to the class that although the length is not changed, the diagram is changed every time. That reveals that 'something' is changed. That 'something' (which is changed) is called what is known as 'angle'.

Situation :2

Objectives :- Student should be able to -

- Identify the vertex of an angle.
- Identify the arms of on angle.
- Read and write an angle in symbolic form.
- Draw an angle on their notebook, which is written in symbolic form on the chalkboard.

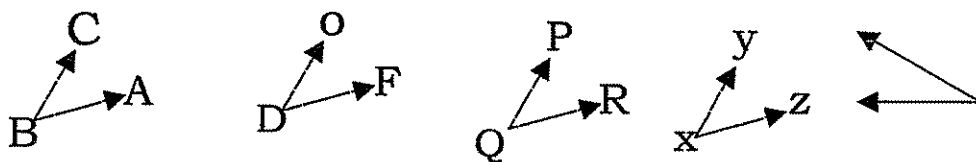
Procedure :-

The researcher draws the following diagram on the chalkboard.



She announces that whatever displayed on the chalkboard are angles. She further looks that an angle is formed by two rays, called arms, originating from a single point, called vertex. She, then calls four students one by one and asks them to identify the vertex and arms of the angles in turn.

1. Having ensured that the class is convinced that these students correctly identify the vertex and arms, the researcher asks the entire class to draw some angle on their notebook.
2. Now the researcher labels all these angle (which are he draw on the chalkboard) as follows.



She tells the students that the angle in figure (i) is read as angle ABC. Now he asks the class to read the angle in the figure- (ii), (iii) and (iv).

3. Having ensured that the entire class reads the angles correctly, the researcher, then asks them to read the angle in the figure (v). It is most likely they will not be able to do so and also be a little perplexed. She may ask them the resume for their silence. In case their silence is not broken she may further ask them whether something is missing.
4. At this junature, it is quite likely that some student might point out that the points are not named. The researcher may ask the some student to go to the chalkboard and do the labeling figure
5. He, then, asks the class whether it can read the angle. It is quite likely that the class gets rid of its perplexity and could easily read the angle.

Concepts : 2 Concept of interior and exterior of an angle.

Situation 3 :

Objectives :- Students should be able to-

- Distinguish between the interior and the exterior of an angle.
- identify the interior of a given angle by shading it.
- identify the exterior of a given angle by shading it.

Procedure :-

1. The researcher draws the angle on the chalkboard. She, then, dotted a few red points on the interior of the angle in the chalkboard and similarly dotted a few blue points on the exterior of the angle. She calls a student near the chalkboard and asks him to dotted a red point on the chalkboard at the appropriate place. She, then, calls another student near the chalkboard and asks him to dotted a blue point on the chalkboard at the appropriate place.
2. Having ensured that the class observes the first student dotting the red point on the interior of an angle and the second student dotting the blue point on the exterior of the angle, the researcher slightly shifts these points in the same regions and asks whether anything has gone wrong. It is most likely that the entire class agree that nothing has gone wrong.
3. The researcher, then, shifts the red dotted point to the exterior and asks the class to comment. It is quite likely that the entire class will object this gesture of the researcher.
4. At this juncture, the researcher informs the class that an angle divides the plane into two parts, the one containing red points is the 'interior' and the one containing blue points is the exterior.
5. The researcher asks each student of the class to draw an angle on their notebook and indicate the interior by pointing it by their forefinger. The researcher has a glance at each student's notebook to

ensure that they do it correctly. She, then asks them to indicate the exterior similarly and makes sure once again that they do it correctly.

6. The researcher asks the students to shade, using pencil, the interior of the angle they drew.
7. Having ensured that the student correctly shaded the interior, the researcher asks them to draw another angle and shade its exterior and makes sure that they do it correctly.

Concept 13 : comparison of angles.

Situation 4 :

Objectives : Student should be able to -

- Identify the bigger angle between the two given angles by comparing each, other.

Procedure :

1. The researcher draw the five angle and labled it by the letters A,B,C,D,E in the ascending order and makes sure that the labels are not visible to the class.
2. She show the angle B and D to the class and asks then to identify the bigger one.
3. Having ensured that the class is able to identify the bigger angle correctly, he makes different pairs of the five angle and asks the individual students to identify the bigger one.
4. She than, keeps the angle C and D at a longer distance and asks them to identify the bigger one.
5. Having ensured that the entire class is able to identify the bigger angle correctly even when they are not close by, he makes different pairs of the angle and asks the individual students to identify the longer one without bringing them close by.

Concept : 4 Kinds of angles.

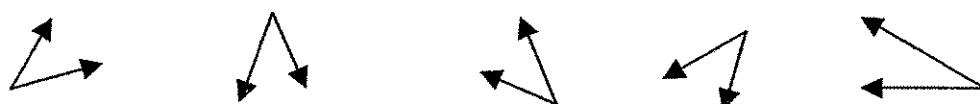
Situation :5

Objective :- Students should be able to -

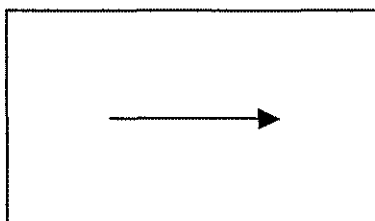
- identify the zero angle.

Procedure :-

1. The researcher draws the following diagrams on the chalkboard and asks the class to count the number of lines in which the pair of rays, forming each angle, lies.



2. The researcher sure that the class agrees on exactly two lines, she asks the class if it is possible that both the arms of an angle could lie on the same line. It is quite possible that there will be some perplexity in the class. She, then takes two rods and makes an angle and the researcher also gives the rod to the students and she asks one of the students to rotate one of the rods while keeping the other fixed.
3. Having ensured that the entire class observes the student changing the angle, suddenly the researcher stops the student and once again asks the class the same question. It is quite likely that every student may come forward and try to superimpose the moving rod onto the fixed rod. Even actually the following situation would come out.

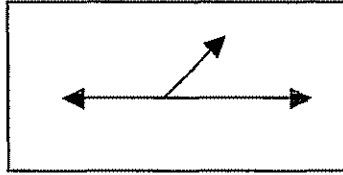


4. At this juncture, the researcher remarks that in that special case the two arms are coincident or identical and further declares that the angle formed so is called 'Zero angle'

- to Identify the angle by comparison of angles.

Procedure :-

1. In situation 6, the researcher pivots a third rod as follow on the chalkboard.



The researcher asks the class to count the number of angles formed. It is quite likely that the class may come out with the answer 'two' probably they would have missed the straight angle She, then, suggests them to look for a third angle.

2. Having ensured that the class is convinced that there are three angles. The researcher asks them to count the number of angles, which are not straight. It is most likely the class comes out with the answer "two", she, then suggests them to call, two angle which make by third rod. She asks them which of the angle is bigger.
3. Having ensured that the class has no difficulty in comparing angles, the researcher ask the class whether it would be possible for the two angles. In some situation, to be equal.

Situation :- 8

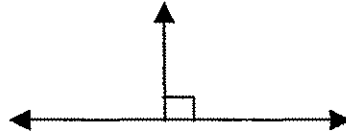
Objectives :- Student should be able to -

- identify the angle
- name the relation between the two arms of a right angle.
- explain the meaning of perpendicular.
- Read the symbolic expression of the type ' $AB \perp CD$ '

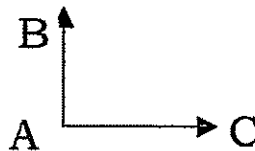
Procedure :-

1. In situation 7 some student sets the other rod perpendicular to other two rod.

2. At this juncture, the researcher admits that she got the answer she desired and declares that in such a situation the angle formed is called a 'right angle'. She also remarks that in fact two right angles are formed in all.
3. The researcher informs them that the arms of a right angle are said to be perpendicular. She then, draws number of angles of which a few are right angles and asks the class to identify the perpendicular rays (arms)



4. Having ensured that the class could correctly identify such pairs, the researcher calls a student to set the third rod in your batch in such a manner that the two rods are perpendicular. It is quite likely that the student does the job correctly without any difficulty.
5. At this juncture, the researcher informs them that the rod can be called perpendicular to the other rod. She then, asks the class, in the similar fashion to relate the AB rod with AC rod.



6. Having ensured that the class could understand the meaning of perpendicularity of rod, the researcher gently transfers the concept of perpendicularity for lines and for line segments. by drawing such perpendicular lines/line segments on the chalkboard.
7. The researcher informs the class that if a line AB is perpendicular to a line is then; it is symbolically represented as ' $AB \perp CD$ '. The researcher draws a number of pairs of perpendicular lines and asks the class to express in symbolic form.
8. Having ensured that the class could write the symbolic form correctly for all the pairs of perpendicular lines found in the diagram, the researcher informs them that the expression " $AB \perp CD$ " is read as "AB is perpendicular to CD". She, then, asks them to read all the symbolic form they have written just before.

Situation :-9

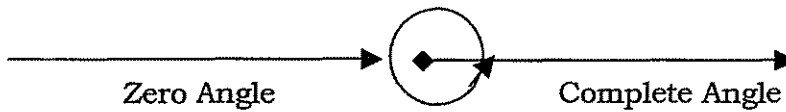
Objectives :- Students should be able to-

- Identify a complete angle
- distinguish between zero angle and complete angle.

Procedure :-

1. In this situation, the researcher says the students to sets the two rod (which is already given) on their bench in the following position. She asks one student to gently rotate the second rod clockwise until it coincides with the first. He asks the class to name the kind of angle so formed. She having ensured that the class claims the angle to be the 'Zero angle', the researcher brings back the second rod to its original position. She calls another student to gently rotate the second rod in counter clockwise direction until it coincides with the first. she , then, again asks the class to name the kind of angle so formed. It is quite likely that the class may again claim the angle to be 'zero angle'.
2. At this juncture the researcher caution them that although the two situation look like but the way the angle formed was different. she asks the following question:
3. In the first case in which manner the final angle is formed (by increasing or decreasing the initial angle)?
4. In the second case in which manner the final angle is formed (by increasing or decreasing the initial angle)?
5. Having ensured that the class is convinced about the difference in the formation of the final angle in the two different ways, the researcher points out that there is nothing strange about arriving at zero angle by decreasing a given angle but it looks awkward to claim to have arrived at 'zero angle' by increasing a given angle. Hence the angle obtained in second case cannot be zero angles. In fact it needs a different name.

6. At this juncture, the researcher announces that the angle formed in the second case is called 'complete angle' as it is obtained by a complete rotation of the rod. She also points out that as the zero angle and complete angle look quite alike they are differently represented as follows :



Situation : 10

Objectives :- Students should be able to

- identify an acute angle.

Procedure :-

1. In this situation the researcher sets the rod in a horizontal position pointing towards right (as seen by the class). She asks to the students to set the one another rod at an angle which is name of the following-
 - Zero angle
 - Right angle
 - Straight angle
 - Complete angle
1. In case the student sets it in an acute angle, the researcher asks the class to compare this angle with a right angle and zero angle.
2. Having ensured that the class is convinced that the angle is bigger than the zero angle and smaller than a right angle, the researcher announces that such an angle is called on' acute angle '.

Situation 11

Objectives : Student should be able to -

- identify an acute angle.

Procedure :-

1. The researcher, sets the first rod which is in a horizontal position pointing towards right (as seen by class). She asks another student to set the second rod at an angle, which is none of the following :
 - Zero angle
 - Right angle
 - Straight angle
 - Complete angle
 - acute angle
2. Having ensured that the student sets it in an obtuse angle, the researcher asks the class to compare this angle with a right angle and straight angle.
3. Making sure that the class is convinced that the angle is bigger than a right angle and smaller than the straight angle, the researcher announces that such an angle is called an 'obtuse angle'

Situations 12

Objectives :- Students should be able to -

- relate a straight angle with a right angle
- relate a complete angle with a right angle
- relate a complete angle with a straight angle.

Procedure :-

1. The researcher calls a student and asks him to give a fold to a rectangular sheet of paper in the usual way (i.e. by making the two opposite edges coincide) and convinces the class that by a single fold a straight angle is formed. She, then, asks the same student to fold again in the usual way. The researcher sends back the students and shows the class the paper after unfolding it completely. She, then, angles so formed.

2. Having ensured that the entire class is convinced that they are all right angles, the researcher asks them to count the straight angles formed.
3. At this juncture, the researcher asks them if they can suggest any section between the straight angle and the right angle. It is most likely the class agrees that two right angles are equal in magnitude to a single angle.
4. The researcher reminds the class that there are in fact four right angles and points out that they all put together form a complete angle. Thus the class will be convinced over the fact that four right angles are equal in magnitude to a single complete angle.
5. The researcher asks the class to suggest any relation between the complete angle and the straight angle. It is most likely that the class agrees that two straight angles are equal in magnitude to a single complete angle.

Concept : 5

Situation : 13

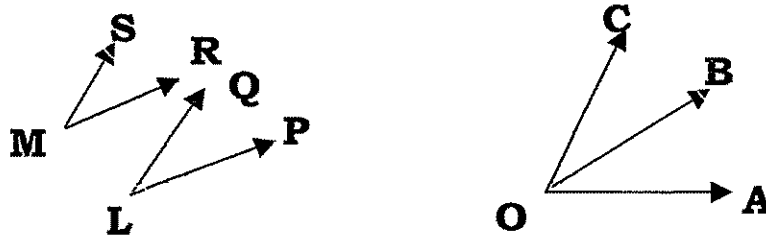
Objectives : Students should be able to-

- identify a pair of adjacent angles.

Procedure :-

2. The researcher draws following diagram on the chalkboard.

3.



The researcher points out towards the two pairs of angles viz., $\angle PLQ$, $\angle EMS$ and $\angle AOB$, $\angle BOC$; and asks them to check in what way they are different in nature. It is quite likely that some students may point



out that in the first pair the vertices are different while in the second pair they have common vertex. She than asks them to point out another difference (if any).

It is most likely that the class would agree that the second pair has a common arm but the first pair does not have any common arm.

4. The researcher, then, announces that the second pair of angles is called ' pair of adjacent angles; the asks the class to mention the condition on a pair of angles in order to be qualified as a pair of adjacent angles. It is quite likely that the class would mention the following two conditions:

- having a common vertex
- having a common arm.

Situation : 14

Objectives : Students should be able to

- Identify a linear pair of angles.

Procedure :-

1. In this situation the researcher draws the following diagram:

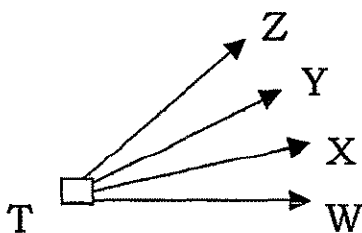


Fig : 3

The researcher asks the class to perform the following task :

- Name a pair of angles, which have a common arm and a common vertex.
- Name a pair of angles, which have a common vertex but not a common arm.

2. Having ensured that the class does the task without mistakes, the researcher announces that in the first case there is a pair of adjacent angles but in the second case the pair can not be called adjacent.
3. Making sure that the class could appreciate the distinction in the two cases, the researcher again asks the class to mention the condition in order that a pair of angles is qualified as a pair of adjacent angles. It is quite likely that the class would mention the condition of having just a common arm.

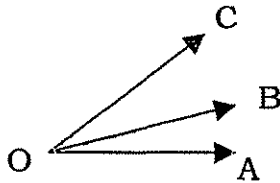
Situation : 15

Objectives :- Students should be able to-

- Count the total number of pairs of adjacent angles in a diagram.

Procedure :-

1. The researcher draws the following diagrams : She asks students to list the possible pairs of angles present in the diagram. It is most likely that the class would come out with the single pair viz, $\angle AOB, \angle BOC$.



2. At this juncture, the researcher assures them there are two more pairs of angles in the same diagram. She provokes them to find the other two by asking them to look for a third angle. It is most likely that the students could get the hint and come out with the following two additional pairs viz.,-

- $\angle AOB, \angle AOC$.
- $\angle BOC, \angle AOC$

3. The researcher writes these on the chalkboard and asks the following questions :
 - Does the first pair have a common arm?
 - Does the second pair have a common arm?
4. Having ensured that the class answers both the questions correctly, the researcher point out that even though these pairs have common arms still they can not be called adjacent pairs of angles. She, than, asks them to point out the difference in the nature of following pairs of angles besides having a common arm :
 - a. $\angle AOB, \angle AOC$
 - b. $\angle AOB, \angle BOC$

It Is quite likely the class may come out with the observation that in the first case the uncommon arms are on the either sides of the common arm while in the second case the uncommon arms are on the same side of the common arm.

5. At this juncture, the researcher asks the class to mention the condition in order that a pair of angles is qualified as a pair of adjacent angles. It is quite likely that class agrees that a pairs of angles can be called a pair of adjacent angles only when they have a common arm and the uncommon arms are not on the same side of the common arm.

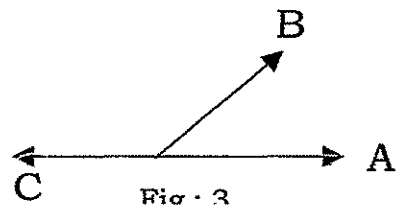
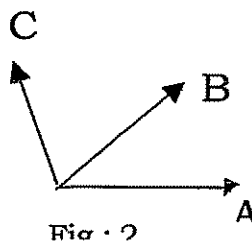
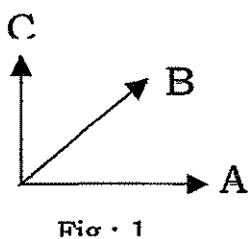
Situation : 16

Objectives : Students should be able to--

- Count the total number of linear pairs of angles in a diagram.

Procedure :-

1. In this situation the researcher draws the following three figures on the chalkboard :



The researcher asks the class to mention the specialty in the pairs of angles $\angle AOB$ and $\angle BOC$ In all three figures.

2. Having ensured that the class agrees that these are adjacent pairs, the researcher asks the class to comment on the angles $\angle AOC$ in the last figure. It is most likely that the class will notice the fact that angle $\angle AOC$ is a straight angle whereas in the case of the first two figures it is not so.
3. At this juncture, the researcher announces that the pair of angles in the third figure is called 'linear pair', She also points out that the linear pair is a special case of pair of adjacent angles.

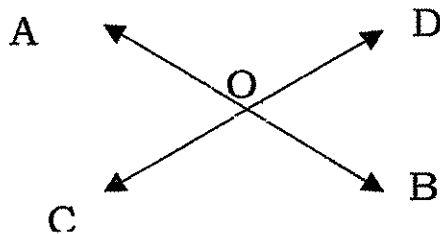
Situation : 17

Objectives :- Student should be able to-

- identify a pair of vertically opposite angles.

Procedure :

1. The researcher draws the following diagram on the chalkboard :



The researcher asks the following question :

- How many straight angles are formed?
- How many non straight angles are formed?
- How many obtuse angles are formed?
- How many acute angles are formed?
- How many pairs of adjacent angles are formed?
- How many linear pairs are formed?

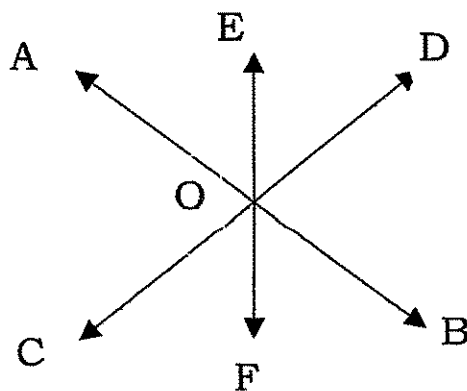


2. Having ensured that the class answer all the question correctly, the researcher asks the class to search for some specially in the pair of angles $\angle AOC$ and $\angle BOD$ besides having a common vertex. It is quite likely that the class may respond that their arms lie on the some pair of straight lines. The researcher, then, asks them to spot another such pair, It is most likely that the class comes out with the pair $\angle AOD$ and $\angle BOC$.
3. At this juncture, the researcher announces that such a pair of angles is called a 'Pair of vertically opposite angles'.

Situation : 18

Objectives :- Students should be able to -

- Count the total number of pairs of vertical opposite angles in diagram.
1. In this situation the researcher draws three lines AB, CD and EF concurrent at O as shown in the following diagram and asks the class to count and also to list total member of vertically opposite angles.



2. It is most likely that the class just counts the following three pairs
 - $\angle AOC, \angle BOD$
 - $\angle COF, \angle DOE$
 - $\angle FOB, \angle EOA$

3. At this juncture, the researcher provokes them to look for some more such pairs. It is quite likely that some student come out with one of the following additional pairs.

- $\angle AOF, \angle BOE$
- $\angle COB, \angle DOA$
- $\angle FOD, \angle EOC$

The class will, then, catch the remaining additional pairs immediately.

5. Having ensured that the entire class is convinced over the possibility of the two arms of an angle lying on the same line, the researcher asks the class if it is possible that the two arms of an angle may lie on the same line without making zero angle. It is most likely that the class may vouch for the impossibility.

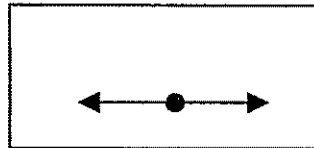
Situation 6 :

Objectives : Students should be able to -

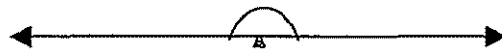
- Identify the straight angle.

Procedure :-

In this situation researcher may suggest the class to try on the angle by two rods (following manner)



At this juncture, the researcher remarks that in the second special case, the two arms are neither coincident nor identical even though they are in the same line. So they do not form zero angle. She declares that the angle formed in such a situation is called straight angle and is represented by



Having ensured that the class is convinced that there are two situations when the arms of an angle may lie on the same line, the researcher calls a student to form a straight angle with the two rods.

Situation : 7

Objectives :- Students should be able to-

શાળા નું નામ :-

નામ :-

ધોરણ :-

લિંગ :-

વર્ગ :-

વર્ષ :-

છોકરો / છોકરી

વિભાગ - ૧

સૂચના :- નીચે આપેલા વિકલ્પોમાંથી યોગ્ય વિકલ્પ પસંદ કરી તેના પર ખરું
(✓) નિશાન કરો.

(૧) ત્રિકોણમાં કેટલા ખૂણાઓ હોય છે ?

(અ) 4 (બ) 2 (ક) 3 (ડ) 5

ઉત્તર

૨) પૂર્ણકોણમાં કેટલા ખૂણા કાટખૂણા હોય છે ?

(અ) 5 (બ) 3 (ક) 2 (ડ) 4

ઉત્તર

૩) બે વિકર્ણ કિરણો દ્વારા નીચેનામાંનો કયો ખૂણો બને ?

(અ) ગુરૂકોણ (બ) સીધો કોણ (ક) પૂર્ણ કોણ (ડ) કાટખૂણો

ઉત્તર

૪) તેવો ખૂણો જે 0 થી મોટો હોય અને 90 થી નાનો હોય તેનું નામ છે.

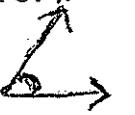
(અ) પૂર્ણ કોણ (બ) લઘુકોણ (ક) ગુરૂકોણ (ડ) કાટકોણ

ઉત્તર

(૫) આપેલો ખૂણો કયા પ્રકારનો છે ?

(અ) લઘુકોણ (બ) ગુરૂકોણ (ક) પૂર્ણ કોણ (ડ) કાટકોણ

ઉત્તર



(૬) સીધાકોણમાં કેટલા કાટખૂણા હોય ?

(અ) 5 (બ) 3 (ક) 2 (ડ) 4

ઉત્તર

(૭) 55 નો કોટિકોણ થાય.

(અ) 35 (બ) 90 (ક) 55 (ડ) 125

ઉત્તર

(૮) કોઈ પણ ગુરૂકોણનો અડધો થાય.

(અ) કાટખૂણો (બ) લઘુકોણ (ક) ગુરૂકોણ (ડ) પૂર્ણકોણ

ઉત્તર

(૯) 70 નો પૂરકકોણ થાય.

(અ) 110 (બ) 90 (ક) 30 (ડ) 70

ઉત્તર

(૧૦) ઘડિયાળમાં બરાબર પાંચ વાગે ત્યારે બંને કાંટા ના અંત્ય બિંદુ આગળ કેટલા માપનો ખૂણો બને ?

(અ) 150 (બ) 100 (ક) 90 (ડ) 60

ઉત્તર

(૧૧) બે ખૂણા કોટિકોણ છે જે દરેક ખૂણાનું માપ સરખું હોય તો દરેક ખૂણાનું માપ કેટલું હોય ?

(અ) 45 (બ) 90 (ક) 180 (ડ) 360

ઉત્તર

(૧૨) બે ખૂણા પૂરકકોણ છે. જે દરેક ખૂણાનું માપ સરખું હોય, તો દરેક ખૂણાનું માપ કેટલું હોય ?

(અ) 45 (બ) 90 (ક) 180 (ડ) 360

ઉત્તર

(૧૩) રેખિક બેડના બંને ખૂણાનાં માપ સરખાં હોય તો દરેક ખૂણાનું માપ કેટલું હોય ?

(અ) 90 (બ) 45 (ક) 0 (ડ) 180

ઉત્તર

(૧૪) 46 ના માપના ખૂણાના અભિકોણનું માપ કેટલું હોય ?
(અ) 100 (બ) 125 (ક) 134 (ડ) 46

ઉત્તર

(૧૫) પરસ્પર છેદતી બે રેખાઓ વડે અભિકોણની કેટલી જોડ બને ?
(અ) 2 (બ) 4 (ક) 8 (ડ) 3

ઉત્તર

(૧૬) પરસ્પર છેદતી બે રેખાઓ વડે રેખિક જોડના ખૂણાની કેટલી જોડ બને ?
(અ) બે (બ) ચારે (ક) ત્રણ (ડ) એક

ઉત્તર

(૧૭) બે ખૂણા અભિકોણ છે અને કોટિકોણ પણ છે. તો તે દરેક ખૂણાનું માપ કેટલું થાય ?

(અ) 45 (બ) 180 (ક) 90 (ડ) 50

ઉત્તર

(૧૮) 62 ના માપના ખૂણાના રેખિક જોડના ખૂણાનું માપ કેટલું થાય ?
(અ) 62 (બ) 28 (ક) 118 (ડ) 100

ઉત્તર

(૧૯) 15 ના માપના ખૂણાના કોટિકોણના પૂરકકોણ નું માપ કેટલું થાય ?
(અ) 75 (બ) 105 (ક) 165 (ડ) 135

ઉત્તર

(૨૦) 138 ના માપના ખૂણાના પૂરક કોણના કોટિકોણનું માપ કેટલું થાય ?
(અ) 42 (બ) 48 (ક) 138 (ડ) 105

ઉત્તર

વિભાગ - ૨

સૂચના :- નીચેના વિધાનો જરા છે કે ખોટા જણાવો. તમારો જવાબ વિધાનની સામે સારું (✓) અથવા ખોટું (x) ઊંચાણ લગાવી આપો.

(૨૧) જો બે ખૂણા કોટિકોણ હોય, તો તે દરેક લઘુકોણ હોય.

ઉત્તર ()

(૨૨) જો બે ખૂણા પૂરક કોણ હોય, તો તે દરેક ગુરૂકોણ હોય.

ઉત્તર ()

(૨૩) રેખિક જોડના ખૂણા પૂરક કોણ હોય.

ઉત્તર ()

(૨૪) અભિકોણની જોડના માપનો સરવાળો 90 હોય.

ઉત્તર ()

(૨૫) અભિકોણોનાં માપ સરખાં હોય છે.

ઉત્તર ()

શાળા નું નામ :-
 નામ :-
 ધોરણ :- વર્ગ :- વર્ષ :-
 લિંગ :- છોકરો / છોકરી

વિભાગ - ૧

સૂચના :- નીચે આપેલા વિકલ્પોમાંથી યોગ્ય વિકલ્પ પસંદ કરી તેના પર ખરુ (✓) નિશાન કરો.

૧) ચોરસમાં કેટલા ખુણાઓ હોય છે ?

(અ) 4 (બ) 2 (ક) 3 (ડ) 5

ઉત્તર

૨) સ્ત્રીધાકોણમાં કેટલા ખૂણા કાટખૂણા હોય છે ?

(અ) 5 (બ) 2 (ક) 3 (ડ) 4

ઉત્તર

૩) બે વિકરદ્ધ કિરણો વ્હારા નીચેનામાંનો કયો ખૂણો બને ?

(અ) ગુરૂકોણ (બ) સ્ત્રીધો કોણ (ક) પૂર્ણ કોણ (ડ) કાટખૂણો

ઉત્તર

૪) 90° અને 180° વચ્ચેના ખૂણાને શું કહેવાય ?

(અ) ગુરૂકોણ (બ) લઘુકોણ (ક) કાટકોણ (ડ) અભિકોણ

ઉત્તર

(પ) આપેલો ખૂણો કયા પ્રકારનો છે ?

(અ) લઘુકોણ (બ) ગુરૂકોણ (ક) પૂર્ણકોણ (ડ) કાટકોણ

ઉત્તર

(ક) પૂર્ણકોણમાં કેટલા કાટખૂણા હોય ?

(અ) 2 (બ) 3 (ક) 4 (ડ) 1

ઉત્તર

(૭) 4.5 નો કોટિકોણ થાય.

(અ) 45° (બ) 90° (ક) 55° (ડ) 100°

ઉત્તર

(૮) કાટખૂણાનો અડધો થાય.

(અ) લઘુકોણ (બ) ગુરૂકોણ (ક) પૂર્ણકોણ (ડ) કાટકોણ

ઉત્તર

(૯) 80° નો પૂરકકોણ થાય.

(અ) 80° (બ) 10° (ક) 100° (ડ) 110°

ઉત્તર

(૧૦) ઘડિયાળમાં બરાબર ત્રણ વાગે ત્યારે બંને કાટાના અંત્ય બિન્દુ આગળ કેટલા માપનો ખૂણો બને.

(અ) 90° (બ) 60° (ક) 180° (ડ) 45°

ઉત્તર

(૧૧) રેખિક ખેડના બંને ખૂણાનાં માપ સરખાં હોય તો દરેક ખૂણાનું માપ કેટલું હોય ?

(અ) 180° (બ) 90° (ક) 60° (ડ) 100°

ઉત્તર

(૧૨) $\angle ABC$ આપેલા હોય તો આ ખૂણો કયાં બે કિરણોના યોગથી બને ?

(અ) \vec{AB} અને \vec{AC} (બ) \vec{BA} અને \vec{AC}

(ક) \vec{AC} અને \vec{CB} (ડ) \vec{BA} અને \vec{BC}

ઉત્તર

(૧૩) $\vec{PQ} \cup \vec{PR} = \dots\dots\dots$ થાય.

(અ) {Q} (બ) {R} (ક) {P} (ડ) {PQ}

ઉત્તર

(૧૪) કાટખૂણાનો પૂરક કોણ કેટલા થાય ?

(અ) 45° (બ) 90° (ક) 180° (ડ) 100°

ઉત્તર

(૧૫) એક ખૂણાના અભિકોણનું માપ 110° છે, તો તે ખૂણાનું માપ શું હોય ?

(અ) 90° (બ) 70° (ક) 110° (ડ) 100°

ઉત્તર

(૧૬) પરસ્પર છેદતી બે રેખાઓ વડે અભિકોણની કેટલી જોડ બને ?

(અ) ત્રણ (બ) બે (ક) ચાર (ડ) આઠ

ઉત્તર

(૧૭) પરસ્પર છેદતી બે રેખાઓ વડે રેખિક જોડના ખૂણાની કેટલી જોડ બને ?

(અ) બે (બ) ચાર (ક) ત્રણ (ડ) એક

ઉત્તર

(૧૮) બે ખૂણા અભિકોણ છે અને પૂરક કોણ પણ છે, તો તે દરેક ખૂણાનું માપ કેટલું હોય ?

(અ) 180° (બ) 45° (ક) 90° (ડ) 60°

ઉત્તર

(૧૯) 100° ના માપના ખૂણાના રેખિક જોડના ખૂણાનું માપ કેટલું થાય ?

(અ) 80° (બ) 90° (ક) 45° (ડ) 60°

ઉત્તર

(૨૦) 90° ના માપના ખૂણાના પૂરકકોણના કોટિકોણનું માપ કેટલું થાય ?

(અ) 42° (બ) 0° (ક) 90° (ડ) 180°

ઉત્તર