Access NCERT Solutions for Class 6 Chapter 5: Understanding Elementary Shapes Exercise 5.4

1. What is the measure of

(i) a right angle?

(ii) a straight angle

Solutions:

(i) The measure of a right angle is 90^0

(ii) The measure of a straight angle is 180^0

2. Say True or False:

(a) The measure of an acute angle < 90^0

(b) The measure of an obtuse angle < 90^0

(c) The measure of a reflex angle > 180^0

(d) The measure of one complete revolution = 360^0

(e) If m ∠A = 53^0 and m ∠B = 35^0, then m ∠A > m ∠B.

Solutions:

(a) True, the measure of an acute angle is less than 90^0

(b) False, the measure of an obtuse angle is more than 90^0 but less than 180^0

(c) True, the measure of a reflex angle is more than 180^0

(d) True, the measure of one complete revolution is 360^0

(e) True, ∠A is greater than ∠B

3. Write down the measures of

(a) some acute angles

(b) some obtuse angles

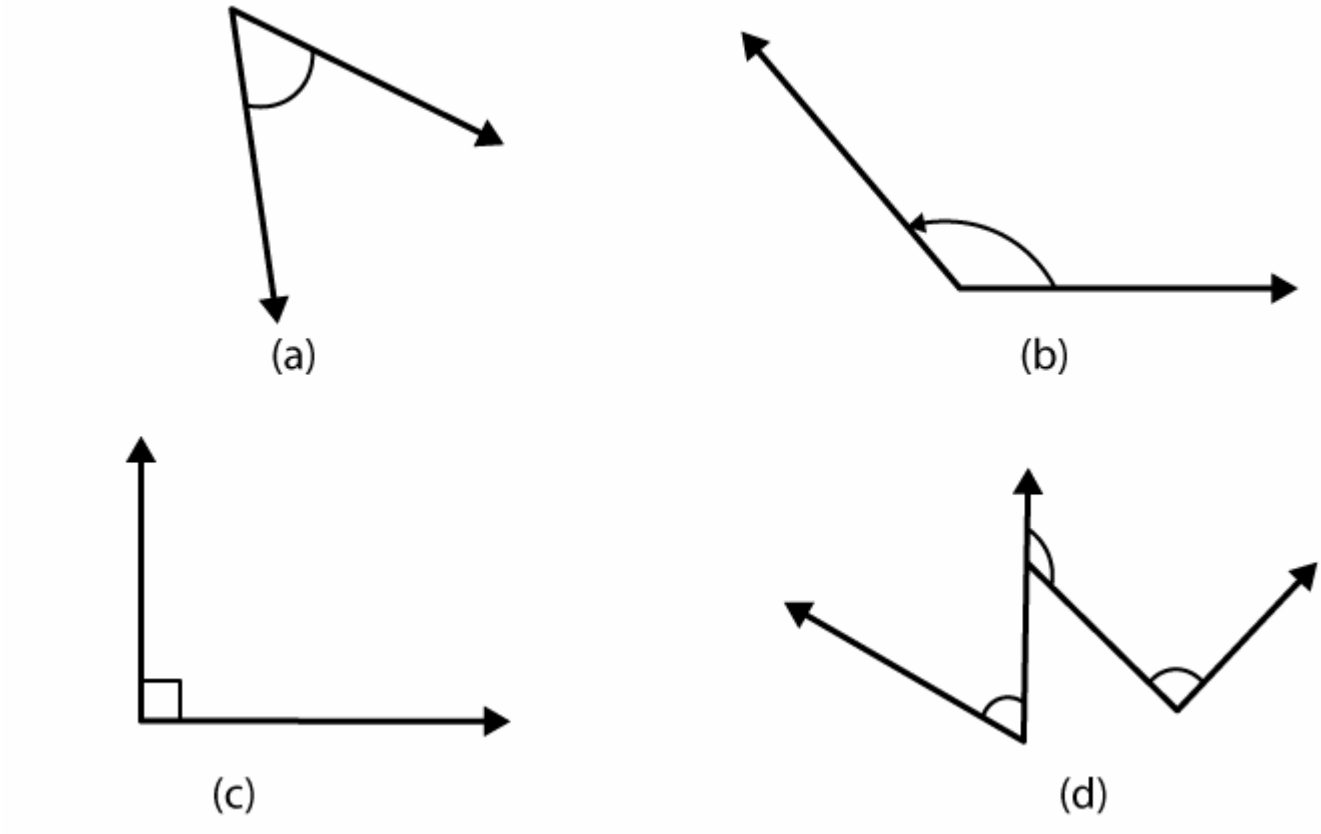
(give at least two examples of each)

Solutions:

(a) The measures of an acute angle are 50^0, 65^0

(b) The measures of obtuse angle are 110^0, 175^0

4. Measures the angles given below using the protractor and write down the measure.



Solutions:

(a) The measure of an angle is 45^0

(b) The measure of an angle is 120^0

(c) The measure of an angle is 90^0

(d) The measures of an angles are 60^0, 90^0 and 130^0

5. Which angle has a large measure? First estimate and then measure.

Measure of Angle A =

Measure of Angle B =

Solutions:

The measure of angle A is 40^0

The measure of angle B is 68^0

∠B has a large measure than ∠A

6. From these two angles which has larger measure? Estimate and then confirm by measuring them.

Solutions:

The measures of these angles are 45^0 and 55^0. Hence, angle shown in second figure is greater.

7. Fill in the blanks with acute, obtuse, right or straight:

(a) An angle whose measure is less than that of a right angle is _____

(b) An angle whose measure is greater than that of a right angle is _____

(c) An angle whose measure is the sum of the measures of two right angles is _____

(d) When the sum of the measures of two angles is that of a right angle, then each one of them is _____

(e) When the sum of the measures of two angles is that of a straight angle and if one of them is acute then the other should be _____

Solutions:

(a) An angle whose measure is less than that of a right angle is acute angle

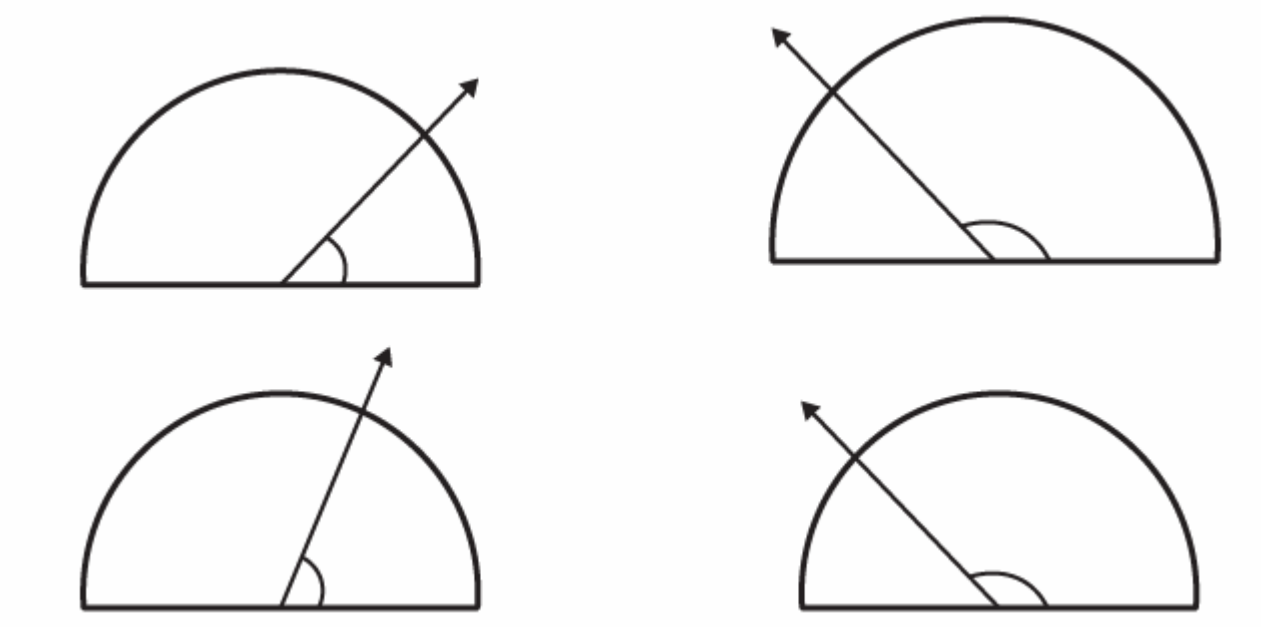
(b) An angle whose measure is greater than that of a right angle is obtuse angle (but less than 180^0)

(c) An angle whose measure is the sum of the measures of two right angles is straight angle

(d) When the sum of the measures of two angles is that of a right angle, then each one of them is acute angle

(e) When the sum of the measures of two angles is that of a straight angle and if one of them is acute then the other should be obtuse angle.

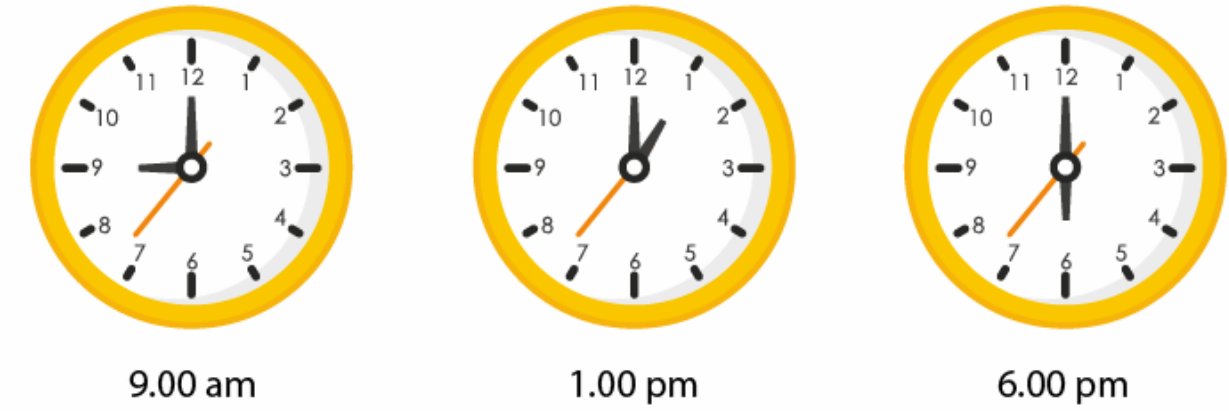
8. Find the measure of the angle shown in each figure. (First estimate with your eyes and then find the actual measure with a protractor).



Solutions:

The measures of the angles shown in above figure are 40^0, 130^0, 65^0 and 135^0

9. Find the angle measure between the hands of the clock in each figure:

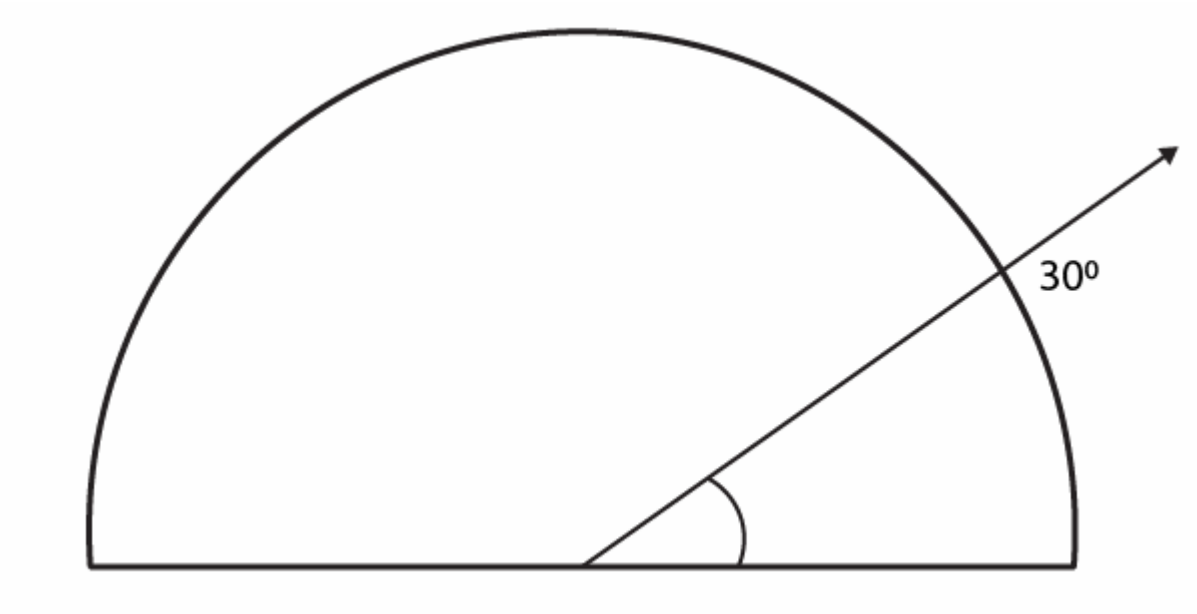


Solutions:

The angle measure between the hands of the clock are 90^0, 30^0 and 180^0

10. Investigate

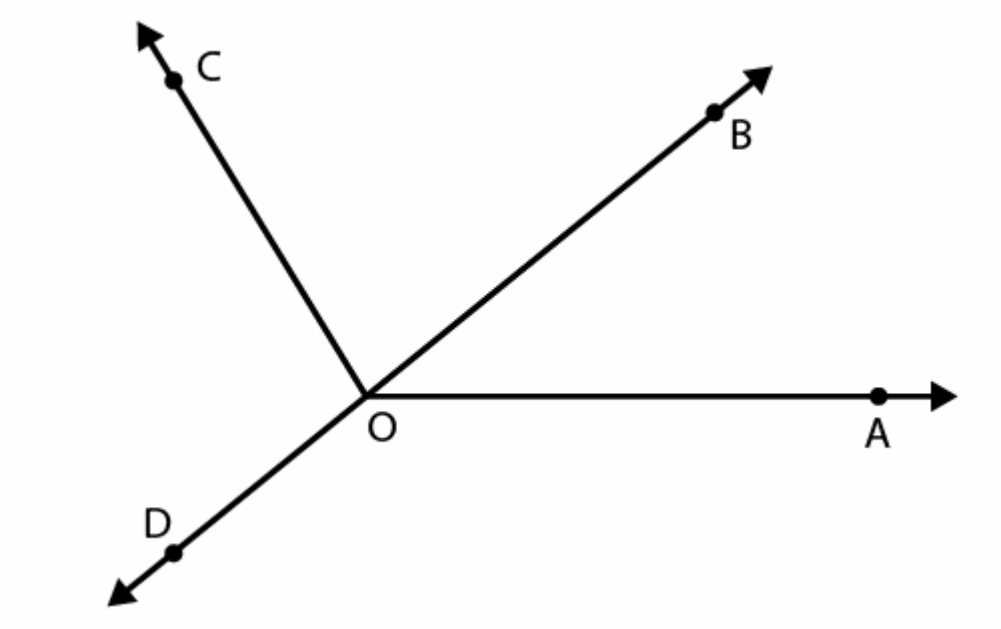
In the given figure, the angle measure 30^0. Look at the same figure through a magnifying glass. Does the angle becomes larger? Does the size of the angle change?



Solutions:

The measure of an angle will not change by viewing through a magnifying glass

11. Measure and classify each angle:



Angle	Measure	Type
∠AOB		
∠AOC		

∠BOC		
∠DOC		
∠DOA		
∠DOB		

Solutions:

Angle	Measure	Type
∠AOB	40^0	Acute

∠AOC	125^0	Obtuse
∠BOC	85^0	Acute
∠DOC	95^0	Obtuse
∠DOA	140^0	Obtuse
∠DOB	180^0	Straight