

Exercise 5.4

Question 1:

What is the measure of (i) a right angle? (ii) a straight angle?

Solution:

The measure of a right angle is 90° and that of a straight angle is 180° .

Question 2:

Say True or False:

- (a) The measure of an acute angle $< 90^{\circ}$.
- (b) The measure of an obtuse angle $< 90^{\circ}$.
- (c) The measure of a reflex angle $> 180^{\circ}$.
- (d) The measure of on complete revolution = 360° .
- (e) If $m\angle A = 53^{\circ}$ and $m\angle B = 35^{\circ}$, then $m\angle A > m\angle B$.

Solution:

- (a) True
- (b) False
- (c) True
- (d) True
- (e) True

Question 3:

Write down the measure of:

- (a) Some acute angles
 - (b) Some obtuse angles
- (Give at least two examples of each)

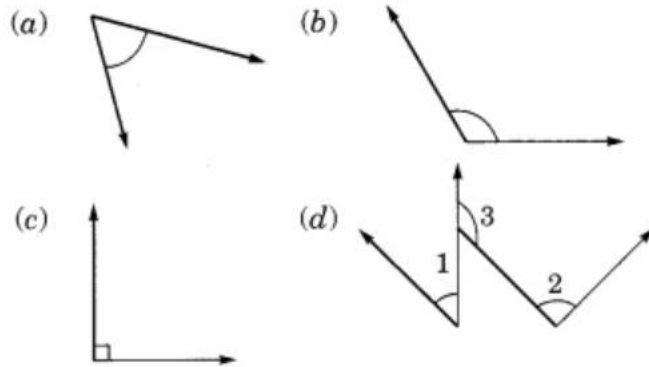
Solution:

- (a) 30° , 45°
- (b) 130° , 169°

Question 4:

Measure the angles given below, using the protractor and write down the measure:

**NCERT Solutions for Class 6th Maths Chapter 5
Understanding Elementary Shapes**



Solution:

The measure of the angles is,

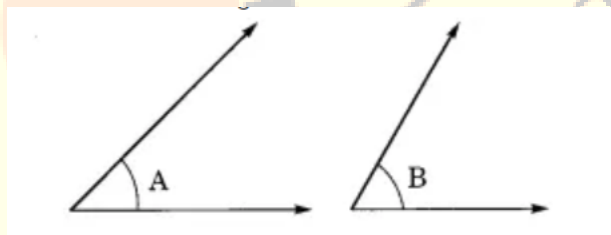
- (a) 45° (b) 120° (c) 90° (d) $\angle 1 = 60^\circ, \angle 2 = 95^\circ, \angle 3 = 135^\circ$

Question 5:

Which angle has a large measure? First estimate and then measure:

Measure of angle A =

Measure of angle B =



Solution:

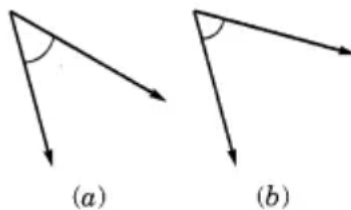
By observation we can see that measure of angle B is greater.

$\angle A = 45^\circ$

$\angle B = 60^\circ$

Question 6:

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



**NCERT Solutions for Class 6th Maths Chapter 5
Understanding Elementary Shapes**

Solution:

By observation we can see that (b) has a bigger angle measure,

Measure of angle A = 45°

Measure of angle B = 60°

Hence, confirmed.

Question 7:

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

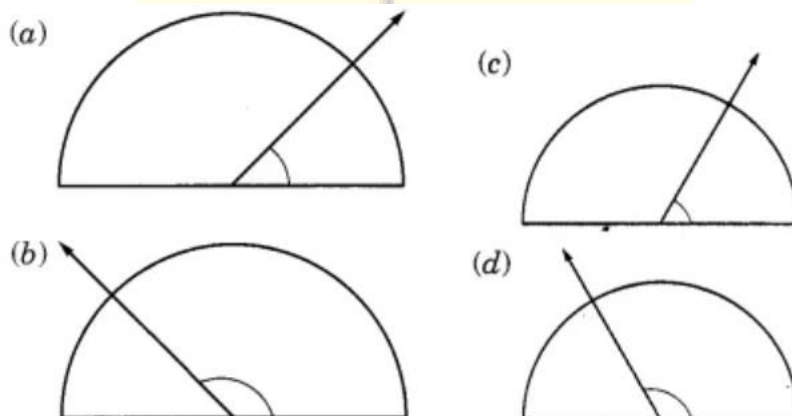
- (a) An angle whose measure is less than that of a right angle is _____.
- (b) An angle whose measure is greater than that of a right angle is _____.
- (c) An angle whose measure is the sum of the measures of two right angles is _____.
- (d) When the sum of the measures of two angles is that of a right 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 _____.

Solution:

- (a) Acute angle
- (b) Obtuse angle
- (c) Straight angle
- (d) Acute angle
- (e) Obtuse angle

Question 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).



Solution:

**NCERT Solutions for Class 6th Maths Chapter 5
Understanding Elementary Shapes**

(i) 30°

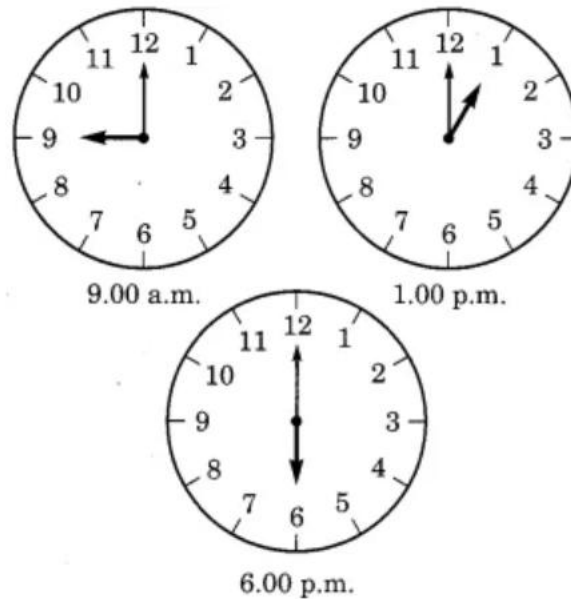
(ii) 120°

(iii) 60°

(iv) 150°

Question 9:

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



Solution:

- (a) 90°
- (b) 30°
- (c) 180°

Question 10:

Investigate:

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



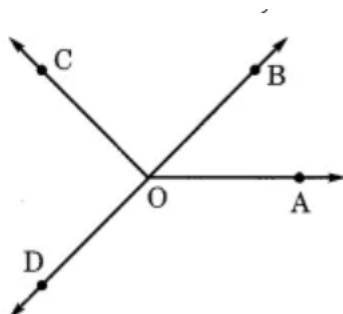
Solution:

No, the measure of the angle will be same.

Question 11:

**NCERT Solutions for Class 6th Maths Chapter 5
Understanding Elementary Shapes**

Measure and classify each angle:



Angle	$\angle AOB$	$\angle AOC$	$\angle BOC$	$\angle DOC$	$\angle DOA$	$\angle DOB$
Measure						
Type						

Solution:

Angle	$\angle AOB$	$\angle AOC$	$\angle BOC$	$\angle DOC$	$\angle DOA$	$\angle DOB$
Measure	40	130	90	90	140	180
Type	Acute	Obtuse	Right	Right	Obtuse	Straight