<center>**CHAPTER – 5**

Understanding Elementary Shapes</center>

EXERCISE – 5.4

Q. 1

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

Answer:

(i) A right angle is always of 90°

(ii) A straight angle is always of 180°

Q. 2

Say True or False:
(a) The measure of an acute angle < 90°.
(b) The measure of an obtuse angle < 90°.
(c) The measure of a reflex angle > 180°.
(d) The measure of one complete revolution = 360°
(e) If $m\angle A = 53°$ and $m\angle B = 35°$, then $m\angle A > m\angle B$.

Answer:

(a) True

An acute angle has its measure less than 90°

(b) False

An obtuse angle has its measure of greater than 90° but less than 180°

(c) True

A reflex angle has its measure greater than 180°

(d) True

A complete revolution is of 360°

(e) True

53° > 35°

Q. 3

Write down the measures of
(a) some acute angles.
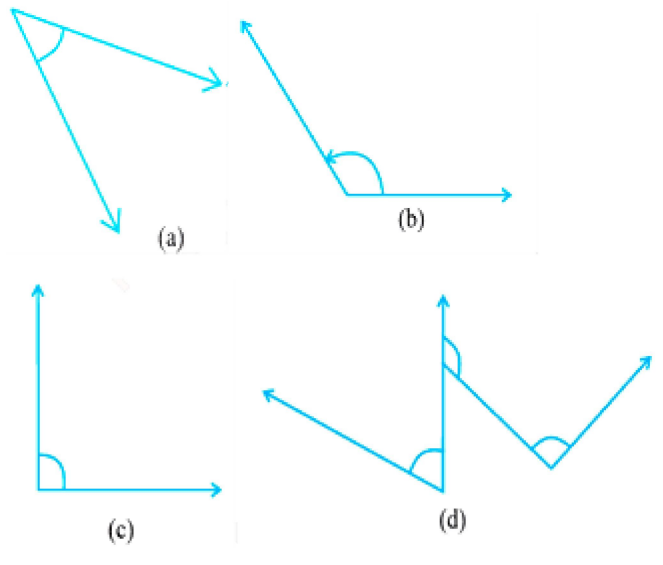(b) some obtuse angles.
(Give two examples of each).

Answer:

(a) Acute angles is the angle which is less than 90° so the examples are; 30°, 45°, 60° and 70°

(b) Obtuse angle is the angle which is greater than 90° but less than 180° and the examples are; 110°, 120°, 135° and 170°.

Q. 4

Measure the angles given below, using the Protractor and write down the measure.
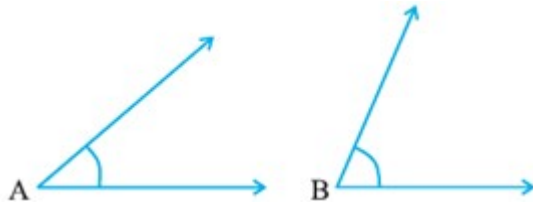

Answer:

(a) 45°

(b) 120°

(c) 90°

(d) 60°, 130° and 90°.

Q. 5

Which angle has a large measure? First estimate and then measure.
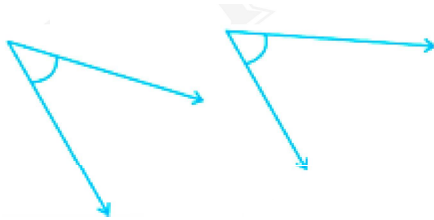
Measure of ∠A =

Measure of ∠B =

Answer:

Measure of ∠A = 40°

Measure of ∠B = 68°

Students have to measure it by their self.

Q. 6

From the following two angles, which has longer measure? Estimate and then confirm by measuring them.

Answer:

The first figure has the angle of 45° and second one of 55°.

Therefore, the angle 55° is the greatest.

Q. 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 measure of two right angle 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 ……….. .

Answer:

(a) Acute

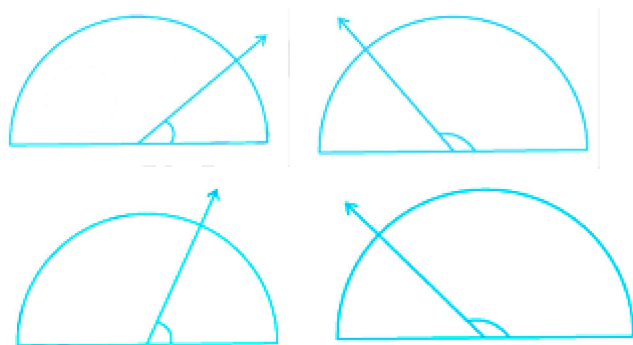**(b)** Obtuse angle (if it is less than 180°)

(c) Straight angle

(d) Acute angle

(e) Obtuse angle.

Q. 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.).

Answer:

By measuring the figures with the help of protractor we get that the angles are of 40° for the first figure, 130° in the second figure, 65° in the third and 135° in the fourth one.

Q. 9

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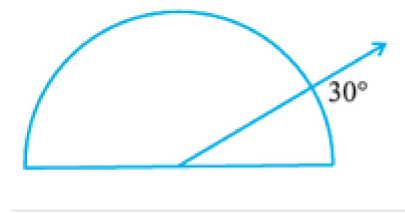
Answer:

9:00 AM = 90°

1:00 PM = 30°

6:00 PM = 180° as it forming the straight line which is always of 180°.

Q. 10

Investigate:
In the given figure, the angle measures 30°. Look at the same figure through a magnifying glass.

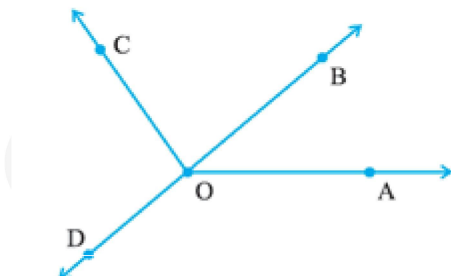Does the angle become larger? Does the size of the angle change?

Answer:

By looking at the figure through the magnifying glass also the angle will remain the same it will not change.

Q. 11

Measure and classify each angle:

Angle	Measure	Type
∠AOB		
∠AOC		
∠BOC		
∠DOC		
∠DOA		
∠DOB		

Answer:

Angle	Measure	Type
∠AOB	40°	Acute angle
∠AOC	125°	Obtuse angle
∠BOC	85°	Acute angle
∠DOC	95°	Obtuse angle
∠DOA	140°	Obtuse angle
∠DOB	180°	Straight angle