

MATHS

NCERT - NCERT MATHEMATICS(GUJRATI ENGLISH)

GEOMETRICAL CONSTRUCTIONS

Examples

1. Draw a ray AB with initial point A and construct a ray AC such that $\angle BAC = 60^{\circ}$.

2. Construct a triangle ABC, in which

$$\angle B = 60^{\circ}$$
 , $\angle C = 45^{\circ}$ and AB + BC + CA = 11 cm.

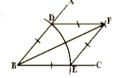


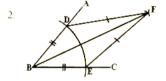
3. Construct a segment of a circle on a chord of length 7cm. and containing an angle of 60° .



Try This

1. Observe the sides, angles and diagonals of quadrilateral BEFD. Name the figures given below and write properties of figures.







2. Draw a circle, Identify a point on it. Cut arcs on the circle with the length of the radius in succession. How many parts can the circle be divided into? Give reason.



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3. Can you draw the triangle with the same measurements in alternate way?



4. What happen if the angle in the circle segment is right angle? What kind of segment do you obtain? Draw the figure and give reason.



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5. Can you construct the triangle ABC with the same measures by changing the base angle $\angle C$ instead of $\angle B$? Draw a rough sketch and construct it



6. Can you construct a triangle ABC with BC = 6 cm, $\angle B = 60^{\circ}$ and AB + AC = 5cm.? If not, give reasons.



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Exercise 13 2

1. Construct riangle XYZ in which $riangle Y=30^{\circ}$,

 $\angle Z=60^{\circ}$ and XY + YZ + ZX = 10 cm.

2. Construct a right triangle whose base is 7.5cm. and sum of its hypotenuse and other side is 15cm.

