NCERT Solutions Class 11 Maths
Chapter 10: Conic Sections
Miscellaneous Exercise on Chapter 10

Document Information:
Class: 11 | **Subject:** Mathematics | **Chapter:** 10 | **Exercise:** misc
Total Questions: 8 | **Academic Year:** 2025-26
Source: www.ncertbooks.net | **Generated:** February 21, 2026

Complete Solutions

Question 1

QUESTION

If a parabolic reflector is 20 cm in diameter and 5 cm deep, find the focus.

ANSWER

Focus is at the mid-point of the given diameter.

Question 2

QUESTION

An arch is in the form of a parabola with its axis vertical. The arch is 10 m high and 5 m wide at the base. How wide is it 2 m from the vertex of the parabola?

ANSWER

2.23 m (approx.)

Question 3

QUESTION

The cable of a uniformly loaded suspension bridge hangs in the form of a parabola. The roadway which is horizontal and 100 m long is supported by vertical wires attached to the cable, the longest wire being 30 m and the shortest being 6 m. Find the length of a supporting wire attached to the roadway 18 m from the middle.

ANSWER

9.11 m (approx.)

Question 4

QUESTION

An arch is in the form of a semi-ellipse. It is 8 m wide and 2 m high at the centre. Find the height of the arch at a point 1.5 m from one end.

ANSWER

1.56 m (approx.)

Question 5

QUESTION

A rod of length 12 cm moves with its ends always touching the coordinate axes. Determine the equation of the locus of a point P on the rod, which is 3 cm from the end in contact with the x-axis.

ANSWER

(x^2)/(81) + (y^2)/(9) = 1

Question 6

QUESTION

Find the area of the triangle formed by the lines joining the vertex of the parabola x^2 = 12y to the ends of its latus rectum.

> **ANSWER**
>
> 18 sq units

Question 7

QUESTION

A man running a racecourse notes that the sum of the distances from the two flag posts from him is always 10 m and the distance between the flag posts is 8 m. Find the equation of the posts traced by the man.

> **ANSWER**
>
> (x^2)/(25) + (y^2)/(9) = 1

Question 8

QUESTION

An equilateral triangle is inscribed in the parabola y^2 = 4ax, where one vertex is at the vertex of the parabola. Find the length of the side of the triangle.

> **ANSWER**
>
> 8√3a

📚 Relevant Resources

Explore more NCERT solutions (click links to visit):

Resource	Visit Link
NCERT Exemplar Class 11 Chemistry MCQs	Practice MCQs →

Resource	Visit Link
NCERT Exemplar Class 11 Biology MCQs	Practice MCQs →
NCERT Class 10 Maths (Review)	View Solutions →

🔗 More Exercises

Visit all exercises from Chapter 10:

EXERCISE 10.1 →

EXERCISE 10.2 →

EXERCISE 10.3 →

EXERCISE 10.4 →

Miscellaneous Exercise on Chapter 10 ✓ →

🌐 **Complete Chapter: Class 11 Maths Ch 10: Conic Sections →**