

MAH MCA CET 2025

MOCK TEST SERIES

NOW AVAILABLE FOR Rs.499

Starting from 2nd February 2025 onwards

Scan QR to Purchase



Or visit this link:
rzp.io/rzp/VAMCA25



MATHS

Hyperbola Worksheet for MAH MCA CET 2025

For students preparing for MCA Entrance Exam.

1. A point on the curve $\frac{x^2}{A^2} - \frac{y^2}{B^2} = 1$ is

- A. $(A\cos\theta, B\sin\theta)$
- B. $(A\sec\theta, B\tan\theta)$
- C. $(A\cos^2\theta, B\sin^2\theta)$
- D. None of these

2. If the eccentricities of the hyperbolas

$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$ and $\frac{y^2}{b^2} - \frac{x^2}{a^2} = 1$ are e and e_1 ,

then $\frac{1}{e^2} + \frac{1}{e_1^2}$ is equal to

- A. 1
- B. 2
- C. 3
- D. None of these

3. If p is a point on the hyperbola

$16x^2 - 9y^2 = 144$ whose foci are s_1 and s_2 , then

$PS_1 \sim PS_2$ is equal to

- A. 4
- B. 6
- C. 8
- D. 12

4. If the latusrectum of an hyperbola be 8 and eccentricity be $\frac{3}{\sqrt{5}}$, then the equation of the hyperbola is

- A. $4x^2 - 5y^2 = 100$
- B. $5x^2 - 4y^2 = 100$
- C. $4x^2 + 5y^2 = 100$
- D. $5x^2 + 4y^2 = 100$

5. The one which does not represent a hyperbola is

- A. $xy = 1$
- B. $x^2 - y^2 = 5$
- C. $(x-1)(y-3) = 3$
- D. $x^2 - y^2 = 0$

6. The equation of the hyperbola whose conjugate axis is 5 and the distance between the foci is 13, is

- A. $25x^2 - 144y^2 = 900$
- B. $144x^2 - 25y^2 = 900$
- C. $144x^2 + 25y^2 = 900$
- D. $25x^2 + 144y^2 = 900$

7. The length of the transverse axis of a hyperbola is 7 and it passes through the point $(5, -2)$. The equation of the hyperbola is

- A. $\frac{4}{49}x^2 - \frac{196}{51}y^2 = 1$
- B. $\frac{49}{4}x^2 - \frac{51}{196}y^2 = 1$
- C. $\frac{4}{49}x^2 - \frac{51}{196}y^2 = 1$
- D. None of these

8. If $(4,0)$ and $(-4,0)$ be the vertices and $(6,0)$ and $(-6,0)$ be the foci of a hyperbola, then its eccentricity is

- A. $\frac{5}{2}$
- B. 2
- C. $\frac{3}{2}$
- D. $\sqrt{2}$

MAH MCA CET 2025

MOCK TEST SERIES

NOW AVAILABLE FOR Rs.499

Starting from 2nd February 2025 onwards

Scan QR to Purchase



Or visit this link:
rzp.io/rzp/VAMCA25



9. The eccentricity of the hyperbola $x^2 - y^2 = 25$ is

- A. $\sqrt{2}$
- B. $\frac{1}{\sqrt{2}}$
- C. 2
- D. $1 + \sqrt{2}$

10. The equation of the transverse and conjugate axis of the hyperbola

$$16x^2 - y^2 + 64x + 4y + 44 = 0$$

- A. $x = 2, y + 2 = 0$
- B. $x = 2, y = 2$
- C. $y = 2, x + 2 = 0$
- D. None of these

11. The difference of the focal distance of any point on the hyperbola $9x^2 - 16y^2 = 144$, is

- A. 8
- B. 7
- C. 6
- D. 4

12. The eccentricity of the hyperbola $4x^2 - 9y^2 = 16$, is

- A. $\frac{8}{3}$
- B. $\frac{5}{4}$
- C. $\frac{\sqrt{13}}{3}$
- D. $\frac{4}{3}$

13. The foci of the hyperbola $2x^2 - 3y^2 = 5$, is

- A. $(\pm \frac{5}{\sqrt{6}}, 0)$
- B. $(\pm \frac{5}{6}, 0)$
- C. $(\pm \frac{\sqrt{5}}{6}, 0)$
- D. None of these

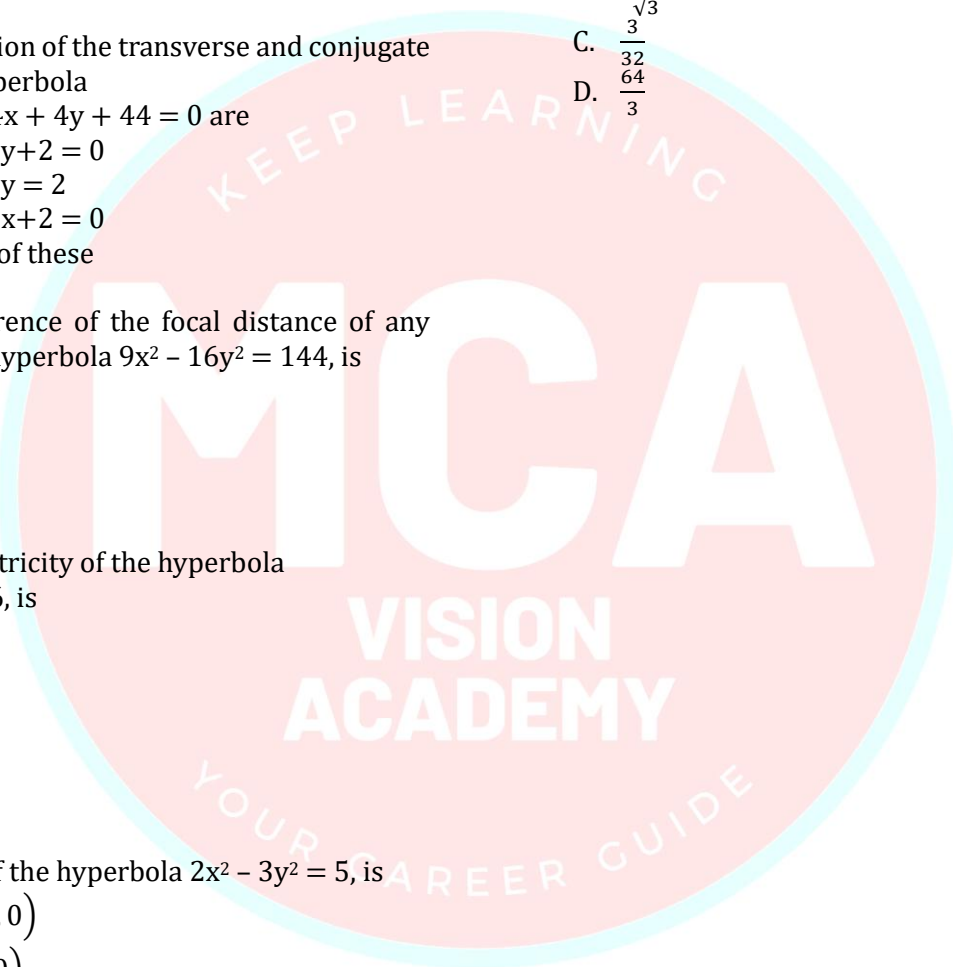
14. The foci of the hyperbola $9x^2 - 16y^2 = 144$ are

- A. $(\pm 4, 0)$
- B. $(0, \pm 4)$
- C. $(\pm 5, 0)$

D. $(0, \pm 5)$


15. The length of transverse axis of the hyperbola $3x^2 - 4y^2 = 32$ is

- A. $\frac{8\sqrt{2}}{\sqrt{3}}$
- B. $\frac{16\sqrt{2}}{\sqrt{3}}$
- C. $\frac{3}{32}$
- D. $\frac{64}{3}$




MAH MCA CET 2025
MOCK TEST SERIES
NOW AVAILABLE FOR Rs.499
 Starting from 2nd February 2025 onwards

Scan QR to Purchase



Or visit this link:
rzp.io/rzp/VAMCA25



Answer Key

1. B	2. A	3. B	4. A	5. D	6. A	7. C	8. C	9. A	10. C
11. A	12. C	13. A	14. C	15. A					

