

# Centum Preparation 100 Days plan class 12 Maths

Q.No.	DAY - 49
301	<p><b>Example 7.15</b></p> <p>Find the acute angle between the curves <math>y = x^2</math> and <math>x = y^2</math> at their points of intersection <math>(0,0), (1,1)</math>.</p>
302	<p><b>Example 7.16</b></p> <p>Find the angle of intersection of the curve <math>y = \sin x</math> with the positive <math>x</math>-axis.</p>
303	<p><b>Example 7.17</b></p> <p>If the curves <math>ax^2 + by^2 = 1</math> and <math>cx^2 + dy^2 = 1</math> intersect each other orthogonally then, <math>\frac{1}{a} - \frac{1}{b} = \frac{1}{c} - \frac{1}{d}</math>.</p>
304	<p><b>Example 7.18</b></p> <p>Prove that the ellipse <math>x^2 + 4y^2 = 8</math> and the hyperbola <math>x^2 - 2y^2 = 4</math> intersect orthogonally.</p>
305	<p><b>EXERCISE 7.2</b></p> <p>2. Find the point on the curve <math>y = x^2 - 5x + 4</math> at which the tangent is parallel to the line <math>3x + y = 7</math>.</p>
306	<p>3. Find the points on the curve <math>y = x^3 - 6x^2 + x + 3</math> where the normal is parallel to the line <math>x + y = 1729</math>.</p>
307	<p>4. Find the points on the curve <math>y^2 - 4xy = x^2 + 5</math> for which the tangent is horizontal.</p>