TANGENTS AND NORMALS

SUBJECT : MATHEMATICS
CHAPTER NUMBER:6
CHAPTER NAME :APPLICATION OF DERIVATIVES

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Tangent and normal of different curves

Problem: 1

At what point on the curve $x^2 + y^2 - 2x - 4y + 1 = 0$, is the tangent parallel to y-axis.

Problem: 2

Find the equations of tangents to the curve $y = x^3$+2x+6 which is perpendicular to to the line $x + 14y + 4 = 0$. .

Problem: 3

Find the equation of the tangent to the curve $x = 1 - cos\theta,\ y = \theta - Sin\theta\ at\ \theta = \frac{\pi}{4}$

.

Problem: 4

Find the equation of the normal to the curve $y = x^2$ which passes through the point (1,2).

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Problem:5

Show that the curve $2x = y^2$ and $2xy = k$ cut at right angles if $k^2 = 8$

HOME ASSIGNMENT

Q1. Find the equation of tangent line to the curve $y = \sqrt{5x - 3} - 2$ which is parallel to the line $4x - 2y + 3 = 0$.

Q2. Find the equation of the tangent drawn to the curve $y^2 - 2x^3 - 4y + 8 = 0$ from the point (1,2).

Q3. For the curve $y = 4x^3 - 2x^5$ find all points at which the tangent passes through origin.

THANKING YOU

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