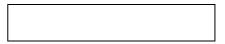
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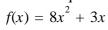
<u>Homework Questions 8 – Equation of Tangents & Normals</u>

1. Find the equation of the tangent to the curve $y = 3x^2 + 5x + 2$ at the point (3,44)

2. For the curve given below, find the gradient of the tangent at the point (4,123) $y = 7x^2 + 4x - 5$



3. Find the equation of the tangent to the function below at the point (1,11)





4. If a tangent cuts a curve at (2,7) and has a gradient of -2, What is the equation of the tangent?



5. Find the gradient of the function at the point (2,36)

If the equation of the curve is $f(x) = 4x^2 + 9x + 2$



6. What are the coordinates of the point on the curve $y = 4 - x^2$ where the gradient of

1

the normal is 4



7. Find the equation of the normals to the curve $y = x^2 - 5$	at the point (2,-1)
8. What is the equation of the tangent to the curve $y = 3x^2 - 9$	9_X at the point where x=4
9. What is the equation of the normal to the curve $y = x - x^2$	$+ 2x^3$ at the point where x=-1
10. Find the equation of the normal to the curve $y = x^2 + 5x$ tangent gradient at this point is 2	+ 1 at the point where the