The skills in this series of worksheets appear frequently.

These are the GIFTS you must take to succeed

<u>Tangent to a Curve</u>   (Non Calculator)

Find the equation of the tangent to the curve at the given point:

1. $y = 3x^2 - 4; x = 2$

2. $y = 6x - x^3; x = -2$

3. $y = 4\sqrt{x}; x = 9$

4. $f(x) = x^3 - 4x + 3; x = -1$

5. $y = x^3 - 2x + 5; x = 2$
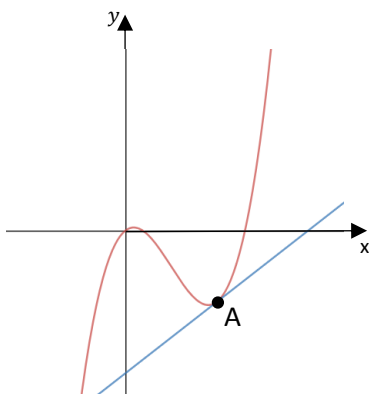
6. $y = 5x^3 - 12x; x = 1$

7. $f(x) = (x-3)^2; x = 4$

8. $y = x^2(2x-1); x = -1$

9. $y = 2\sqrt{x}; x = 25$

10. $y = 3 - \dfrac{2}{x}; x = -2$

APPLYING QUESTION

The tangent to the curve $y = x^3 - 3x^2 + x$ makes an angle of 45° with the positive direction of the $x - axis$.

Establish the co-ordinates of point A.