

$f(x) = x^3 + (a+2)x^2 - 9x + b$   
 $f'(x) = 3x^2 + 2(a+2)x - 9$   
 $f'(x_1) = 0$   
 $f'(x_2) = 0$

$|x_1 - x_2| = 4$   
 $x_2 - x_1 = 4$

$|x_1 - x_2| = 4$   
 $x_2 - x_1 = 4$

$3(x_1^2 - x_2^2) + 2(a+2)(x_2 - x_1) = 0$   
 $12(x_1 + x_2) + 8a + 16 = 0 \quad | : 4$   
 $3(x_1 + x_2) + 2a + 4 = 0$   
 $\frac{x_1 + x_2}{2} = 1$   
 $x_1 + x_2 = 2$   
 $x_2 - x_1 = 4$

$a = -5$   
 $A = (1, -4)$   
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$f(x) = x^3 + (a+2)x^2 - 9x + b$   
 $f'(x) = 3x^2 + 2(a+2)x - 9$   
 $f''(x) = 6x + 2(a+2)$   
 $f''(x_A) = 0$

$|x_1 - x_2| = 4$   
 $x_2 - x_1 = 4$   
 $x_1 + x_2 = 2$

$6 \cdot 1 + 2a + 4 = 0$   
 $a = -5$   
 $b = 11$

$4 = f(1)$   
 $A = (1, -4)$