Tanget to a circle

Center of circle is (2,-2) , R = 4

Equation $\Rightarrow$ $(x-2)^2 + (y+2)^2 = 16$

$x^2 - 4x + y^2 + 4y - 8 = 0$

The tanget passing (2,2)

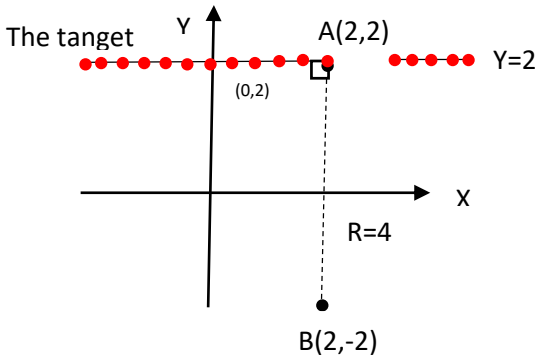
$x_1.x - 2(x_1+x) + y_1y + 2(y_1+y) - 8 = 0$

(2,2)

$2x - 2(2+x) + 2y + 2(2+y) - 8 = 0$ /2

$x - 2 - x + y + 2 + y - 4 = 0$

$2y - 4 = 0$ $\Rightarrow y = 2$



We can use another method

a_{AB} is not a number

$a_+ = 0$

(2,2) $a_+ = 0$

$y - 2 = 0\,(x - 2)$

$y - 2 = 0$

$y = 2$