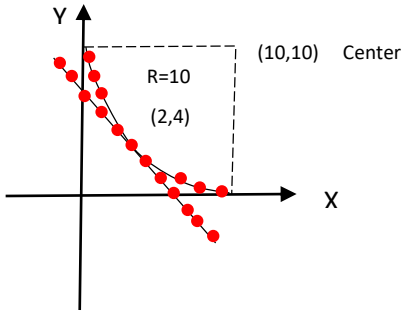
Circle and distance



$(x-10)^2 + (y-10)^2 = 100$, circle

B(2,4) $(2-10)^2 + (4-10)^2 = 100$

$64 + 36 = 100$

Through (2,4) we want to find the Tanget

$(x_1-10)(x-10) + (y_1-10)(y-10) = 100$

$(2-10)(x-10) + (4-10)(y-10) = 100$

$-8(x-10) - 6(y-10) = 100$

$4(x-10) + 3(y-10) + 50 = 0$

Tanget $\Rightarrow 3y + 4x - 20 = 0$, $a = \frac{-4}{3}$

$\frac{3y+4x-20}{+\sqrt{25}} = 0$

Center C(10,10)

$\frac{30+40-20}{5} = R = 10$

$a_1 = \frac{10-4}{10-2} = \frac{6}{8} = \frac{3}{4}$

$a_2 = \frac{-4}{3}$

$\frac{3}{4}.\left(-\frac{4}{3}\right) = -1$