Equation of the tangent line to $f(x)$ at $x = a$.

It has slope $f'(a)$

and goes through the point $(a, f(a))$

So the tangent line is

$y - f(a) = f'(a)(x - a)$

or

$y = f'(a)x - af'(a) + f(a)$

so for #9, we have $f'(1) = -1$ and the point was $(1, 0)$.

So the equation of the tangent line is

$y - 0 = -1(x - 1)$

or

$y = -x + 1$