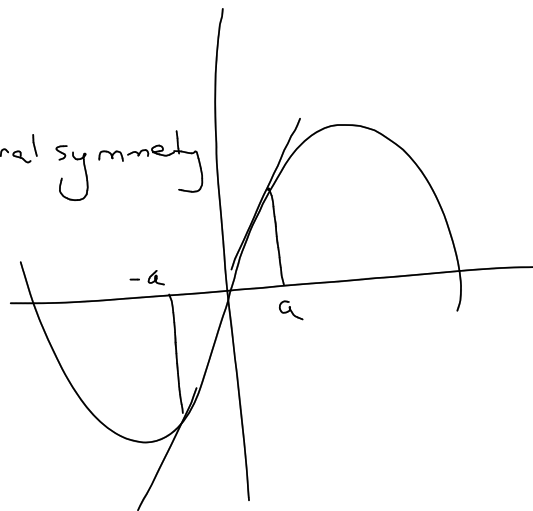
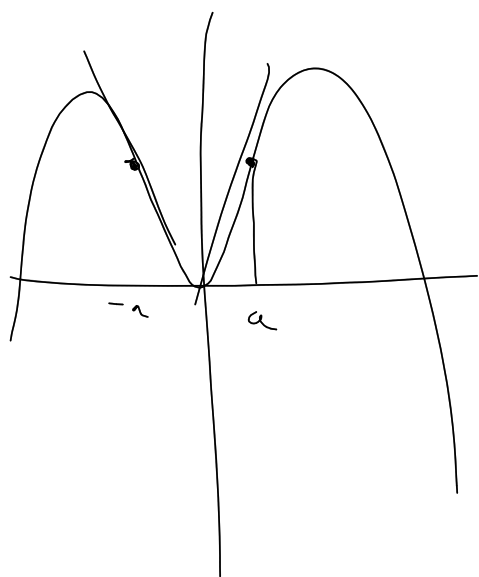


9a) $f(x)$ is odd

$f'(-a) = f'(a)$ by rotational symmetry

$\therefore f'(x)$ is even





$$f(a) = f(-a)$$

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

$\therefore f'(x)$ is odd