

3. [12 points] Consider the family of linear functions

$$L(x) = ax - 3$$

and the family of functions

$$M(x) = a\sqrt{x}$$

where a is a nonzero constant number. Note that the number a is the same for both equations. Find a value of a for which $L(x)$ is *tangent* to the graph of $M(x)$. Also find the x and y coordinates of the point of tangency. Write your answers in the blanks provided.

$a =$ _____

$x =$ _____

$y =$ _____