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$f(x) = \sqrt{x+1}$ parallel to $x - 6y + 4 = 0$

$\downarrow$

$-6y = -x - 4$

$y = \frac{x}{6} + \frac{2}{3}$

$\uparrow \; m = \frac{1}{6}$

$m_t = \lim_{h \to 0} \frac{f(x+h) - f(x)}{h}$

$= \lim_{h \to 0} \frac{\sqrt{x+h+1} - \sqrt{x+1}}{h}$

$= \lim_{h \to 0} \frac{(\sqrt{x+h+1} - \sqrt{x+1})(\sqrt{x+h+1} + \sqrt{x+1})}{h(\sqrt{x+h+1} + \sqrt{x+1})}$ $\Rightarrow m_t = \frac{1}{6}$.

$= \lim_{h \to 0} \frac{x+h+1 - (x+1)}{h(\sqrt{x+h+1} + \sqrt{x+1})}$

$= \lim_{h \to 0} \frac{h}{h(\sqrt{x+h+1} + \sqrt{x+1})}$

$= \lim_{h \to 0} \frac{1}{\sqrt{x+h+1} + \sqrt{x+1}}$

$= \frac{1}{2\sqrt{x+1}} \longrightarrow \frac{1}{6} = \frac{1}{2\sqrt{x+1}}$

$2\sqrt{x+1} = 6$

$\sqrt{x+1} = 3$

$x = 8$

$\therefore$ point is $(8, 3)$

$\therefore$ Equation is $y - 3 = \frac{1}{6}(x - 8)$