$\begin{cases} a \text{ or } b = 0. \text{ other isn't} \Rightarrow \text{there is two zero in } (a.b) \\ a \neq 0.\ b \neq 0 \Rightarrow \text{there is three zero in } (a.b) \end{cases}$

$\Rightarrow f''$ has at least one zero in $(a.b)$

3 $f(x) = x^{\frac{5}{3}} - 4x^{\frac{2}{3}}$. $f'(x) = \frac{5}{3}x^{\frac{2}{3}} - \frac{8}{3}x^{\frac{-1}{3}} = (\frac{5}{3}x - \frac{8}{3})x^{\frac{-1}{3}}$

$f'(\frac{8}{5}) = \underline{f'(0) = 0}$

$\therefore f(x)$ exists for all $x \in \mathbb{R}$

$\therefore$ critical paints only appear where $f(x) = 0$

critical points $= (0, f(0)).\ (\frac{8}{5}.\ f(\frac{8}{5}))$