

Name:

ID:

SR:

Question1: Find the point(s) on the curve $y = \frac{x}{x-2}$ where the tangent(s) is (are) perpendicular to the line $2x - y = 3$.

Question2: Let $f(x) = \begin{cases} \cos(x) - \frac{x}{\pi} + 4, & x \leq \pi \\ \frac{1-\tan(x)}{\pi}, & x > \pi \end{cases}$, find $f'(x)$.

Question3. Find the tangent equation to the curve $f(x) = \frac{\sin(x)}{1-\cos(x)}$ when $x = \frac{\pi}{2}$