Tangent Lines:


$$
\left.\begin{aligned}
\text { Q } A R O C & =\begin{array}{c}
\text { Slope of the } \\
\text { secant line }
\end{array} \\
& =\frac{y_{2}-y_{1}}{x_{2}-x_{1}}
\end{aligned} \right\rvert\, \begin{aligned}
& =\frac{y_{2}-y_{1}}{x_{2}-x_{1}}
\end{aligned}
$$

Homework
(2) Find the IROC for the given point
A. $y=2 x^{2}+3$ at $x=4 \quad x=3.9$ to $x=4.1$

$$
\begin{aligned}
& \text { (1) } \begin{array}{l|l|l}
y=2(3.2)^{2}+3 \\
y=33.42
\end{array}\left|\begin{array}{l|l}
y=2(4.1)^{2}+3 \\
y=36.62
\end{array}\right| \begin{array}{ll}
\text { (3) } & I R O=\frac{36.62-33.4}{4.1-3.9}
\end{array} \\
& \begin{array}{l|l}
y=33.42 & y=36.62 \\
(3.9,33.42) & (4.1,36.62) \\
(x, y) & =\frac{3.2}{0.2}
\end{array} \\
& \left(x_{1}, y_{1}\right)\left|\left(x_{2}, y_{2}\right)\right|=16
\end{aligned}
$$

