

PRE-AP ALGEBRA 2

3A.9 CLASSWORK

For

$$y = R(x) = \frac{2x^2 - 5x}{x - 3},$$

- Calculate the oblique asymptote (O.A.).
- Find the vertical asymptote (V.A.).
- Graph $y = R(x)$ on the axes provided. Include the O.A. and V.A. on your graph.

$$\begin{array}{r|rr|r} 3 & 2 & -5 & 0 \\ & & 6 & 3 \\ \hline & 2 & 1 & 3 \end{array} \Rightarrow R(x) = 2x + 1 + \frac{3}{x-3}$$

$$\Rightarrow (a) \ y = 2x + 1 \text{ is O.A.} \leftarrow$$

$$(b) \ x = 3 \text{ is V.A.} \leftarrow$$

