

PRE-AP ALGEBRA 2

- 1) For $y = R(x)$ as given, find its horizontal asymptote (H.A.).

a)

$$R(x) = \frac{7x + 8}{x - 5}$$

b)

$$R(x) = \frac{x^2 - 2x}{3x^3 - 8}$$

Problems 2 and 3 concern the function

$$y = R(x) = \frac{x^2 - 3x - 4}{x^2 - 3x - 10}.$$

- 2) Without using your calculator, find:

- a) The horizontal asymptote (H.A.) of $y = R(x)$.
- b) The vertical asymptotes (V.A.s) of $y = R(x)$.
- c) The x -intercepts of $y = R(x)$.
- d) The y -intercept of $y = R(x)$.

3B.8 CLASSWORK

- 3) Graph $y = R(x)$ on the axes below. Include the H.A., V.A.s and x - and y -intercepts on the graph.

