

EXTRA PROBLEMS

$$\#2) \quad y = \frac{x^2 - 5x + 6}{x^2 - 2x - 3} = \frac{\cancel{(x-3)}(x-2)}{\cancel{(x-3)}(x+1)} = \boxed{\frac{(x-2)}{(x+1)}}$$

y-INTERCEPT: $(0, -2)$

VERTICAL ASYMPTOTE: $x = -1$

HORIZONTAL ASYMPTOTE: $y = 1$

HOLE: $(3, 1/4)$

DOMAIN: $(-\infty, -1) \cup (-1, 3) \cup (3, \infty)$

RANGE: $(-\infty, 1/4) \cup (1/4, 1) \cup (1, \infty)$

END BEHAVIOR:

AS $x \rightarrow \infty$, $f(x) \rightarrow 1$

AS $x \rightarrow -\infty$, $f(x) \rightarrow 1$

