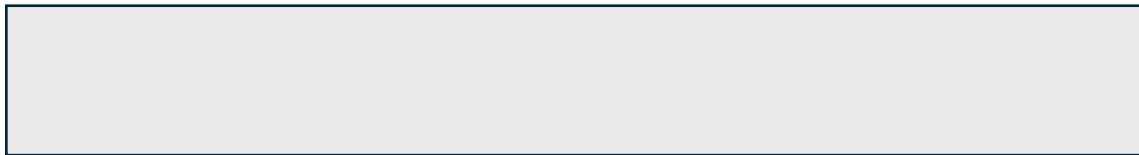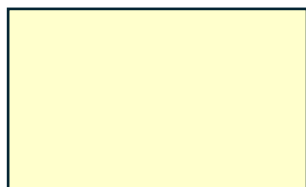## Rational Function Model

Recall the _____ format:

[ ]

where _____ is _____   LC is _____

degree (_____) is _____

_____ function : =

[ ]

examples:

Domain of a Rational Function

All _____ numbers EXCEPT those that _____ the _____ to be _____.

Vertical Asymptote(s) of a Rational Function

Occur when an _____ is NOT in _____ **AND** there is NO _____

between _____ and _____.

Horizontal Asymptote of a Rational Function

Compare the _____ between _____ and _____.

Scenario #1   Scenario #2   Scenario #3

On exam, you will NOT be asked to _____ a _____ function, however

expect to be asked to _____ its _____:

             ♦ determine if _____

             ♦ find _____

             ♦ locate any _____ or _____

             ♦ determine if a _____ asymptote _____

ex. Determine the components of _____.

symmetry:

y-intercept:

x-intercept(s):

vertical asymptote(s):

horizontal asymptote:

ex. Determine the components of _____.

symmetry:

y-intercept:

x-intercept(s):

vertical asymptote(s):

horizontal asymptote:

ex. Determine the components of _____.

    1st factor:

    y-intercept:

    x-intercept(s):

    vertical asymptote(s):

    horizontal asymptote:

Sketching a Rational Function with a Hole

ex. Sketch _____

Rational Function with a Slant Asymptote

ex. Determine the components of _____.

symmetry:

y-intercept:

x-intercept(s):

vertical asymptote(s):

horizontal asymptote: