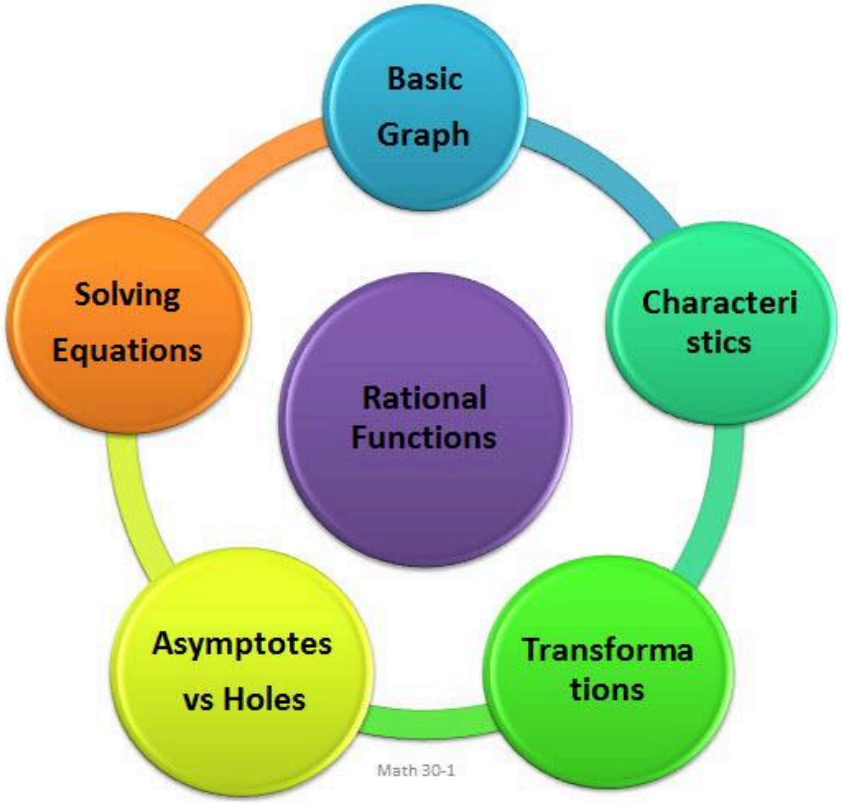
9. Rational Functions



Math 30-1 Chapter 9 Rational Functions Outline

9.1	Exploring Rational Functions Using Transformations
9.2	Analysing Rational Functions
9.3	Connecting Graphs and Rational Equations
	9. Review
	9. Rational Functions Exam

Notes Packages

Interactive Notes for students

9.1 Exploring Rational Functions Using Transformations

Class Notes

The McGraw-Hill Ryerson PreCalculus 12 Text is used as the Main Resource.
Assignments in the Powerpoint Lesson Plans refer to pages and questions in the PreCalculus 12 text.

9.1 Exploring Rational Functions Using Transformations

Digital Files

Asymptote (GGB File)
Rational Function1 (GGB File)
Rational Function2 (GGB File)

9.2 Analysing Rational Functions

Class Notes

The McGraw-Hill Ryerson PreCalculus 12 Text is used as the Main Resource.
Assignments in the Powerpoint Lesson Plans refer to pages and questions in the PreCalculus 12 text.

9.2 Analysing Rational Functions

9.3 Connecting Graphs and Rational Equations

Class Notes

The McGraw-Hill Ryerson PreCalculus 12 Text is used as the Main Resource.
Assignments in the Powerpoint Lesson Plans refer to pages and questions in the PreCalculus 12 text.

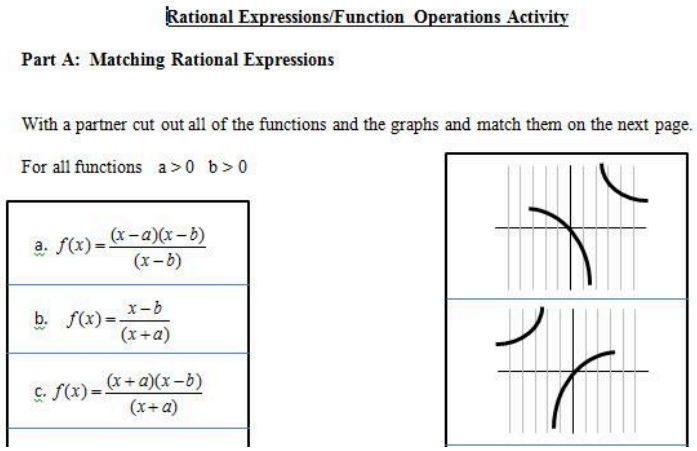
9.3 Connecting Graphs and Rational Equations

Pedagogical Shifts: TRANSFORM, Moving from Traditional to Student-centered

Shifting from Memorization to Higher-Level Thinking
Shifting from Competitive to Collaborative Learning.

Here is an activity from Ben Luchkow at EPS.

Rational Equations and Graphs Activity



Rational Expressions/Function Operations Activity

Part A: Matching Rational Expressions

With a partner cut out all of the functions and the graphs and match them on the next page.

For all functions $a > 0$ $b > 0$

a. $f(x) = \frac{(x-a)(x-b)}{(x-b)}$

b. $f(x) = \frac{x-b}{(x+a)}$

c. $f(x) = \frac{(x+a)(x-b)}{(x+a)}$

This is a nice activity to support the Mathematical processes of **Reasoning, Communication, Connections and Problem Solving**. I like that it is a conceptual activity rather than just numbers. This promotes understanding of the concepts of points of discontinuity or vertical asymptotes in a very interactive way.

Check out the second part of the activity, it really makes students think!

9.Rational Review

M30-1 Chapter 9 Review (Rational Functions)DK