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Rational Functions Project

Applications of rational functions: If you want to know why it is important to understand rational functions, consider the following:

Project for Rational Functions:

Goal: Analyze a rational function and its graph. Objectives: • Recognize a rational function.

- Explain why the denominator of a rational function cannot be zero thus recognizing these values as the places where vertical asymptotes occur and what they graphically look like.

- Student will explain why the values where vertical asymptotes appear are excluded from domain of the function and thus the graph does not touch or cross them.

- Student will demonstrate what the graph of the function does as it approaches the vertical asymptote from the left and right.

- Student will be able to graphically recognize what a horizontal asymptote is.

Learning Objective: You will explain why the denominator of a rational function cannot be zero thus recognizing these values as the places where vertical asymptotes occur and graphically what vertical asymptotes look like and mean.

Learning Activity: You will use a word problem showing a real world application of rational functions (given), with a grading rubric to explain the possible effects of dividing by zero. The following is an actual mathematical model used for Cost-Benefit analysis. The model is a rational function. Read the situation and analyze what the solution should be using the algebraic techniques we have studied.

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