Math 12 Pre-Calculus LG 16

RATIONAL FUNCTIONS



Lots of real world situations can be modeled using functions and equations. Check out pages 426 - 427 and 428 - 429.

LEARNING GUIDE EXPECTATIONS:

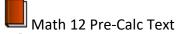
On the completion of this learning guide you will be able to:

- 1) Graph, analyze and compare rational functions using transformations and technology.
- 2) Determine whether graphs have an asymptote or a point of discontinuity for a non-permissible value.
- 3) Solve rational equations.



Write the LG 16 assessment quiz in the test centre.









LEARNING ACTIVITIES:

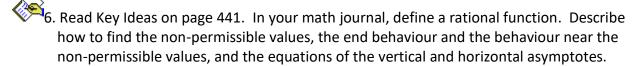


Expectation #1: Graph, analyze and compare rational functions using transformations and technology.



- 1. Watch and take notes on instructional video on Graphing Rational Functions.
- 2. In the textbook, read Link the Ideas on page 432.
- 3. Work through Example 1 on pages 432 433 and complete the "Your Turn" question.
- 4. Read the information at the top of page 434.

5. Work through Examples 2-5 on pages 434 – 441 and complete the corresponding Your Turn questions.



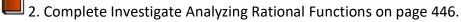
 \blacksquare 7. In the textbook, complete pages 442 - 445 #1 - 4, 6 - 9, 13 - 15.



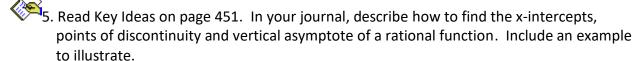
Expectation #2: Determine whether graphs have an asymptote or a point of discontinuity for a non-permissible value.



1. Watch and take notes on instructional video on Analyzing Rational Functions.



- 3. Read Link the Ideas on page 447.
- 4. Work through Examples 1-3 on pages 447-450 and complete the corresponding Your Turn questions.







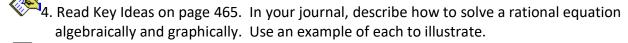
Expectation #3: Solve rational equations.

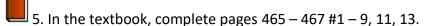


1. Watch and take notes on instructional video on Solving Rational Equations.



- 2. Read Link the Ideas on page 458.
- 3. Work through Examples 1-4 on pages 459 464 and complete the corresponding Your Turn questions.





REVIEW AND CHALLENGE



- 1. In the textbook, complete Chapter 9 Review pages 468 469 #1 11.
- 2. Complete Chapter 9 Practice Test pages 470 471 #1 16.

Key Terms: rational function, point of discontinuity, asymptote.

PRACTICE QUIZZES

Practice quiz #1

Practice quiz #2

Practice quiz #3

Practice quiz #4