Math 12 Pre-Calculus LG 17

FUNCTION OPERATIONS

INTRODUCTION:

You will learn how to use various combinations of functions to model real world phenomena. Check out pages 472 – 473.

LEARNING GUIDE EXPECTATIONS:

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

1) Sketch and analyze the sum and difference of functions.
2) Sketch and analyze the product and quotient of functions.
3) Sketch and analyze the composition of functions.

EVALUATION:

Write the LG 17 assessment quiz in the test centre.

RESOURCES NEEDED:

Math 12 Pre-Calc Text

THSS Math 12 Pre-Calc Learning Guides.

www.thssmath.com

LEARNING ACTIVITIES:

Expectation #1: Sketch and analyze the sum and difference of functions.

1. Watch and take notes on instructional video on Adding and Subtracting Functions.
2. In the textbook, read Link the Ideas on page 475.
3. Work through Examples 1 - 4 on pages 476 - 482 and complete the corresponding Your Turn questions.
4. Read Key Ideas on page 483. In your math journal, use an example to explain how to add and subtract functions. Explain how to find the domain and range.

5. In the textbook, complete pages 483 – 487 #1 – 13, 15.

Expectation #2: Sketch and analyze the product and quotient of functions.

1. Watch and take notes on instructional video on Multiplying and Dividing Functions.

2. Read Link the Ideas on page 490.

3. Work through Examples 1 – 3 on pages 490 - 495 and complete the corresponding Your Turn questions.

4. Read Key Ideas on page 495. In your journal, describe how to find the domain and range of the product and quotient of 2 rational functions. Include an example of each to illustrate.

5. In the textbook, complete pages 496 - 498 #1 - 12.

Expectation #3: Sketch and analyze the composition of functions.

1. Watch and take notes on instructional video on Composition of Functions.

2. Read Link the Ideas on page 500.

3. Work through Examples 1-5 on pages 501 - 506 and complete the corresponding Your Turn questions.

4. Read Key Ideas on page 506. In your journal, describe how to find the composition of a function and then find its domain and range. Use an example of each to illustrate.

5. In the textbook, complete pages 507 – 509 #1 – 8, 10, 12, 13, 17.

REVIEW AND CHALLENGE

1. In the textbook, complete Chapter 10 Review pages 510 – 511 #1 – 15.
2. Complete Chapter 10 Practice Test pages 512 – 513 #1 – 14.

Key Terms: composite function.

PRACTICE QUIZZES

Practice quiz #1
Practice quiz #2
Practice quiz #3
Practice quiz #4