

# Math 12 Pre-Calculus LG 20

## FINAL COURSE REVIEW



### EVALUATION:

In this learning guide, you will be preparing to write the course final exam. The Final Exam is worth 25% of your school mark (it counts for LG 20). However, if you do better on your course final exam than your current course average, then the course final exam may count for 100% of your course mark.



### RESOURCES NEEDED:



Math 12 Pre-Calc Text



THSS Math 12 Pre-Calc Learning Guides.



[www.thssmath.com](http://www.thssmath.com)

### LEARNING ACTIVITIES:

Your final exam will consist of:  
8 written questions worth 30 marks.

The questions on the written part will be:

Question #1 & 2 on all versions will be transformations.

For example

- Given a graph of  $y=f(x)$ , graph  $y = -2f(x-3)$
- Given a graph of  $y=f(x)$ , graph  $y = f^{-1}(x)$ .

Question #6 on all versions will consist of a trig proof.

The other 5 questions on the final will come from the topics below:

1. Given the graph of a function, graph the square root of a function.
2. Given a cubic function, determine the possible integral factors and factor fully.
3. A remainder theorem question such as: When  $x^3 - kx^2 + 6$  is divided by  $x - 3$ , the remainder is 4. Determine  $k$ .
4. Solve trig equations algebraically.
5. Given a graph of a trig function, determine the properties of the function and the equation.
6. Solve a trig word problem.

7. Solve an exponential equation.
8. Solve a log equation.
9. Given a rational function, graph it, determine the equation of the asymptotes, places of discontinuity, x and y intercepts, domain and range.
10. Solve a rational equation.
11. Use the binomial theorem to expand a binomial.
12. Determine the number of ways of organizing something.

In order to review for the Final Exam, you should do the following:



1. Review your Math Journal entries for Learning Guides 1-18.
2. Review and redo the questions on your assessment quizzes that relate to the questions indicated above.



2. Go to the Math 12 Pre-Calculus Review and Practice Quizzes section (LG 20) on-line at [sd42onlineyolasite.com](http://sd42onlineyolasite.com) or go directly to them by clicking on the following links:

[Practice Final #1](#)

[Practice Final #2](#)

[Practice Final #3](#)

[Practice Final #4](#)

[Practice Final #5](#)

[Practice Final #6](#)

[Practice Final #7](#)

[Practice Final #8](#)

[Practice Final #9](#)

[Practice Final #10](#)

[Practice Final #11](#)

[Practice Final #12](#)

[Practice Final #13](#)

[Practice Final #14](#)

[Practice Final #15](#)



3. If you need additional questions to help you prepare for the Final Exam, then complete the Cumulative Reviews and Unit Tests in the Pre-Calculus Math 12 textbook:
  - a) Unit 1: pages 160-161
  - b) Unit 2: pages 328-329
  - c) Unit 3: pages 424-425
  - d) Unit 4: pages 552-553

The online practice unit tests also make great reviews.