

Exam Preparation: Strategies for Success in Mathematics Courses



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Thought:

Mathematics is not a spectators sport.

George Polya (1887-1985)

Difference between math and other courses:

New topics are built on older topics - solid foundation of prerequisite material is essential.

Math is learned by doing problems. Do the homework.

You are expected to read the text, work through examples, practice more than just the assigned homework questions.

1 hour of lecture → 3 hours of study

Cramming for exams will not work!

Some things to think about:

How many days do you plan to study for final exams?

When do you plan to start studying?

Will you study in a group, by yourself, or a bit of both?

Have you picked up your marked homework assignments and exams?

Have you checked your homework solutions for ALL questions?

Did you go over the midterms tests?

Will you try enough of the HARD problems in the text?

Thought:

If you keep doing what you've always done, you'll keep getting what you've always got.

Zig Zigler

What can I do now to prepare for Exams?

Learn from past mistakes - reflect on homework and midterms; you can learn from these!

Regular review

Attend classes!

Use the text; examples, exercises, review questions

Optimize your learning style; manage your time! (eg., don't just work on "easy" problems)

Develop your own practice questions

Develop and follow a study schedule

Prepare your own "cheat sheet" (study sheet)

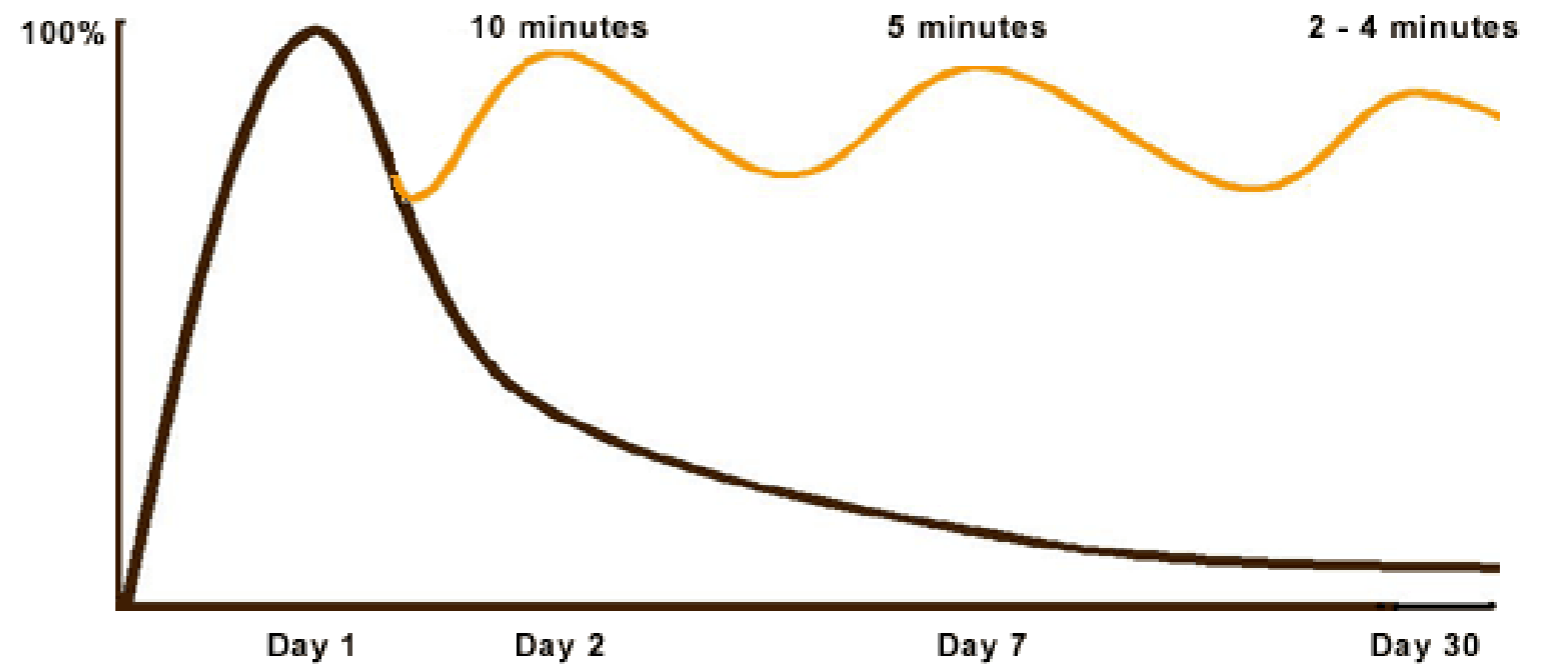
Create your own exam – practice at home!

Regular Review:

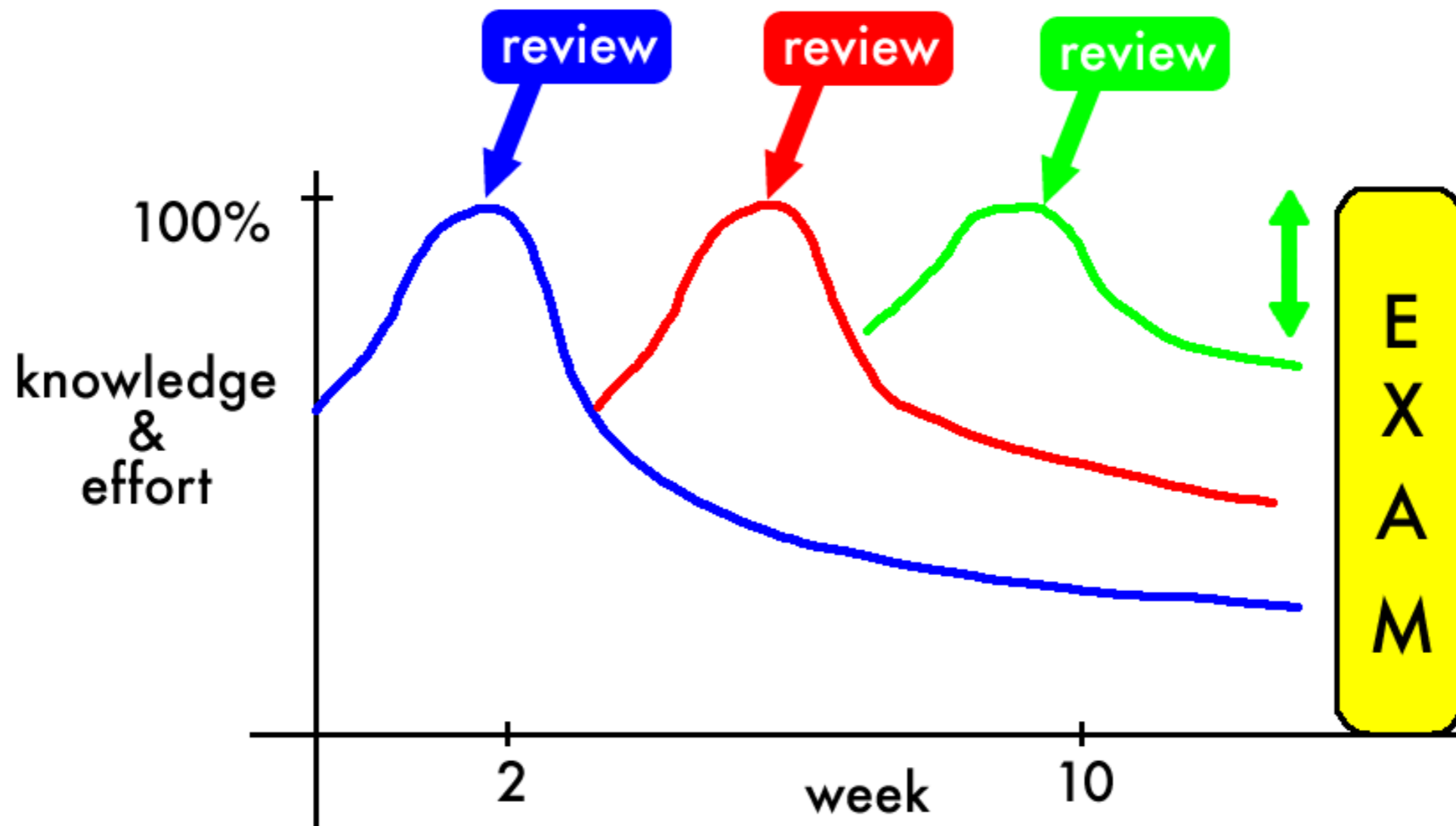
Review lecture notes

- Within 24 hours
- Weekly
- 1 - 3 weeks pre-exam

Curve of Forgetting



Reviewing Effectively:



review material frequently during the term

Preparing for Exams What Should You Try:

Starting well in advance, breaking your studying into chunks and reviewing often.

Identify your weaknesses (in understanding)

Studying “from the top down” (big concepts to specific calculations)

Studying by stimulating your memory (what examples are illustrating this concept? Definitions?)

Ending each study session with 15 minutes of reflection

Taking in no new material the night before the exam

Expect the unexpected! (eg., new questions)

Pre-Exam Plans:

nutrition (food, fluids)

rest (relaxation & sleep)

Transportation; Don't be late!!

Practice writing tests/exams

Review study sheet; overview of course

isolation (reduce distractions; focus)

Equipment (calculator, ruler, pencils, eraser, ...)

game plans: exam rituals & strategies

Ritual:

A set of actions thought to have symbolic value.

Purpose:

- to calm, relax, focus, provide a centered state of mind
- to put you more in control of the situation

Strategy:

A plan of action designed to achieve a particular goal.

Purpose:

- to maximize results (grades/performance)

Some examples of rituals/strategies:

positive affirmations (“I will do well on this exam.”)

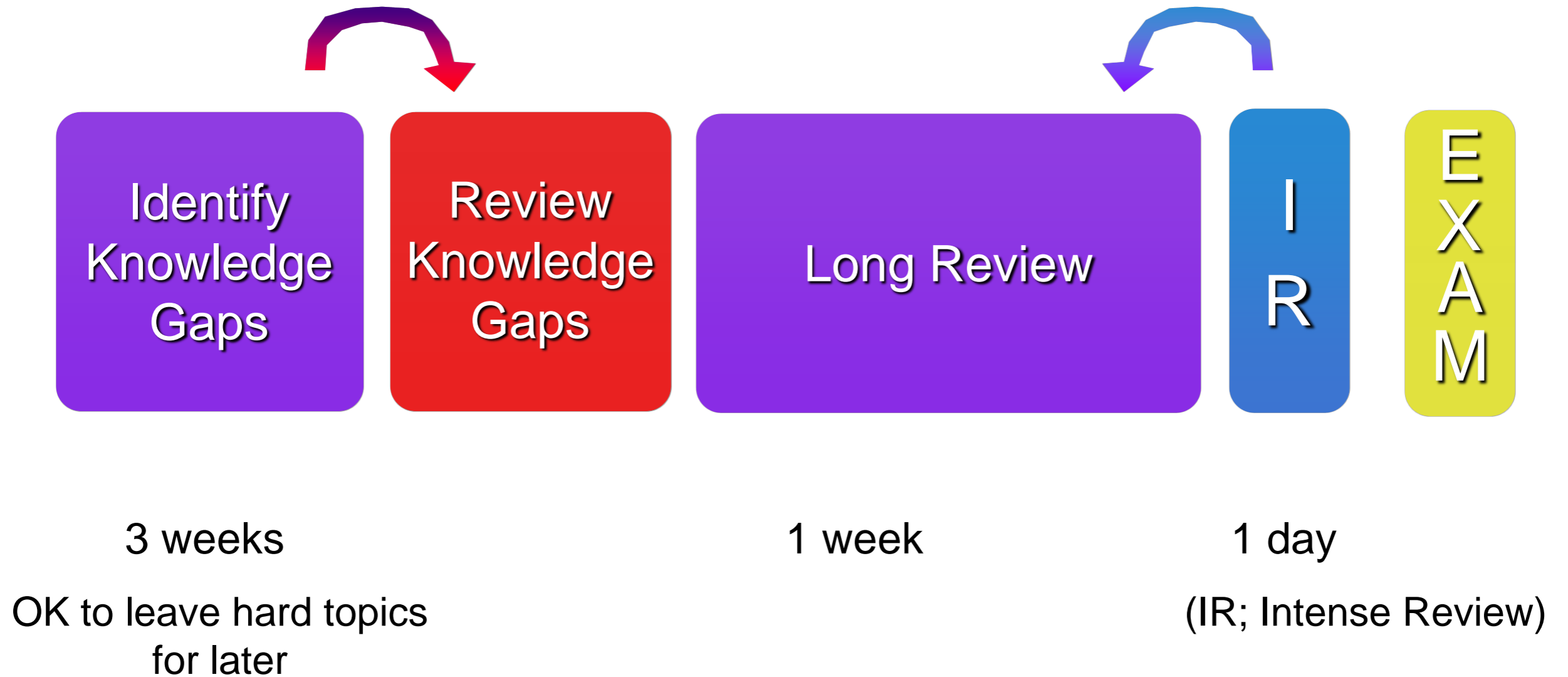
using same pen/pencil/eraser/ruler

read ALL exam questions before beginning - choose to begin with the easiest question

have a plan if you begin to panic - close eyes, breath slowly, think of something calming (images/music).

What are your rituals and/or strategies?

Three Weeks Before the Exam



*I hear, and I forget
I see, and I remember,
I do, and I understand,
I reflect, and I improve.
(Chinese Proverb)*

Magic Key

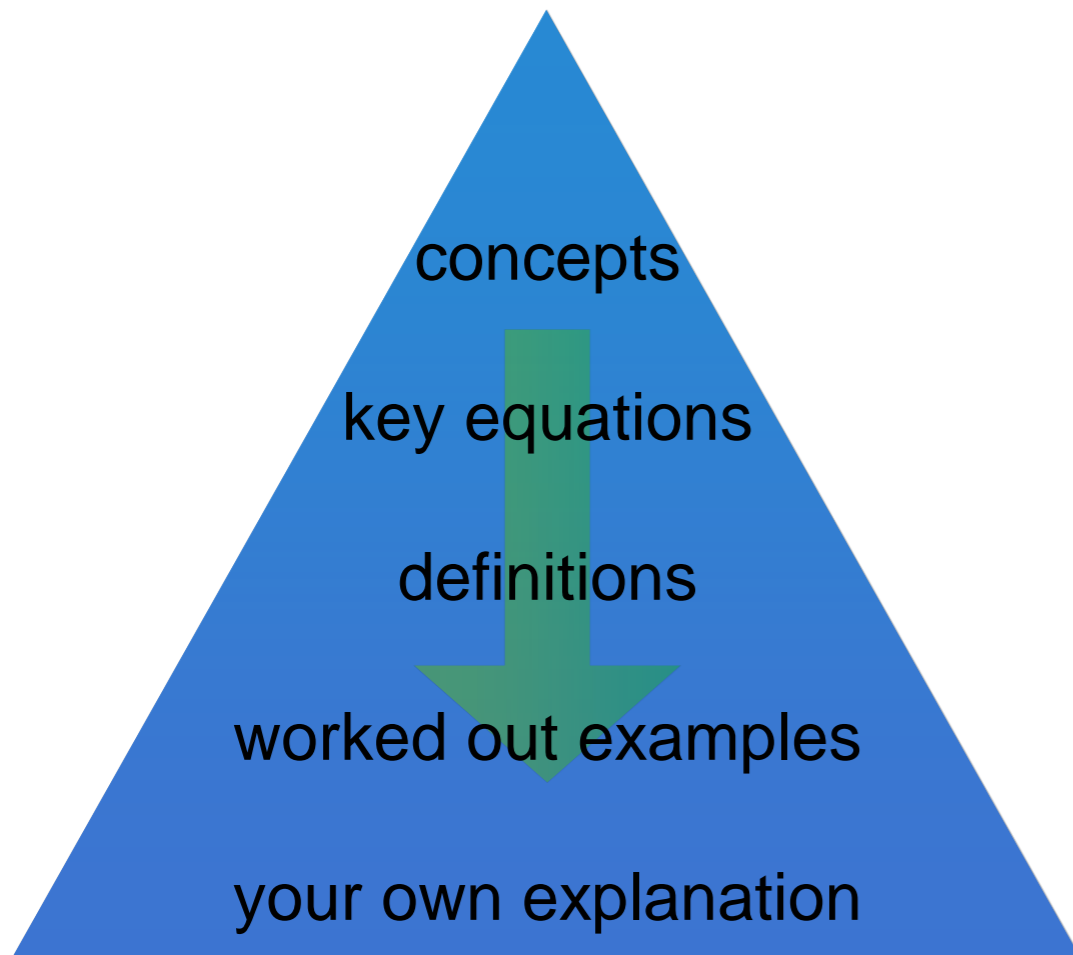
1. Start studying from the first day of the semester, and have a plan.
2. Read the textbook, and other required or recommended material.
3. Do your homework!
4. Treat your homework and midterms as learning opportunities: pick up and revise your papers, make sure you understand your mistakes.
5. Organize a study group. Learn to ask questions! Teach someone!
6. Review periodically - don't wait until the end of the semester!
7. Develop your own exam rituals and strategies, and mentally rehearse them in days prior to the exam.
8. Don't cram!
9. Plan last days before your exams wisely, making sure that you have enough sleep and eat properly.
10. Exercise helps. So does music (listening to Mozart is supposed to help with math and logical thinking).

Thought:

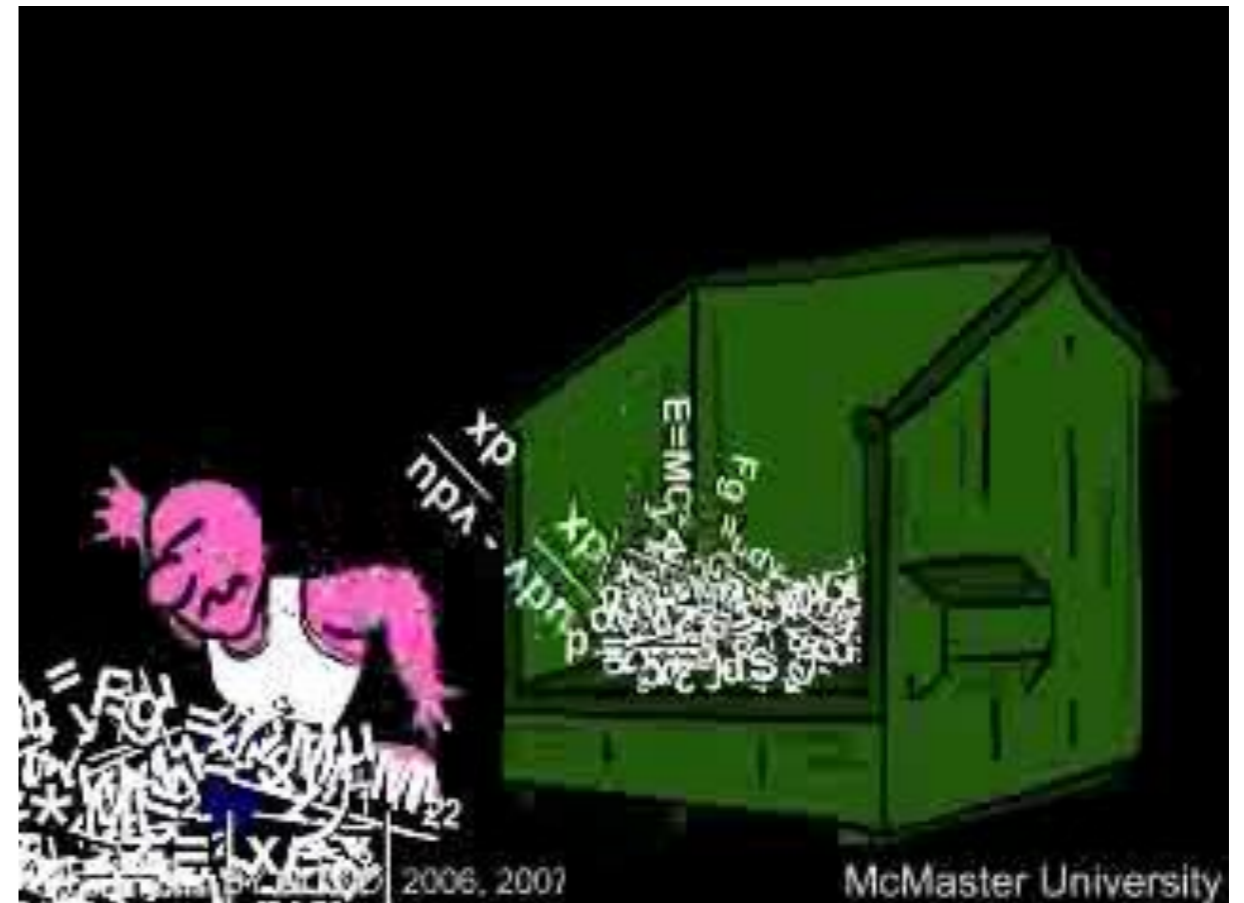
Everyone knows that it is easy to do a puzzle if someone has shown you how. That is simply a test of memory. The test of reasoning and understanding is to solve puzzles that you have never studied before.

W.W. Sawyer

How do you organize information?



Structural hierarchy



“Dumpster” Approach

Organize the material; prepare a summary sheet

Concept Summary



Heading or
Title of Concept

Key
Equations/Formulas/Facts

Definition of Each Term

Additional Information

Your Own Example or
Explanation

Focus on Working on Problems

Alistair Lachlan

March 18, 2009

Step 1

- ▷ Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

From the instructor gather information about what to expect:

Step 1

- ▷ Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

From the instructor gather information about what to expect:

What fraction of the exam corresponds to material on first midterm?

Step 1

- ▷ Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

From the instructor gather information about what to expect:

What fraction of the exam corresponds to material on first midterm?

What fraction of the exam corresponds to material on second midterm?

Step 1

- ▷ Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

From the instructor gather information about what to expect:

What fraction of the exam corresponds to material on first midterm?

What fraction of the exam corresponds to material on second midterm?

What fraction of the exam corresponds to material covered since the second midterm?

Step 1

- ▷ Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

From the instructor gather information about what to expect:

What fraction of the exam corresponds to material on first midterm?

What fraction of the exam corresponds to material on second midterm?

What fraction of the exam corresponds to material covered since the second midterm?

(continued)

Step 1
▷ (continued)
Step 2
Step 3
(continued)
Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Will definitions and/or theorems be asked for?

(continued)

Step 1
▷ (continued)

Will definitions and/or theorems be asked for?

Step 2
Step 3
(continued)

Is any kind of calculator permitted?

Step 4
Step 3
(continued)
Step 4
Step 5
Summary

(continued)

Step 1
▷ (continued)

Will definitions and/or theorems be asked for?

Step 2
Step 3
(continued)

Is any kind of calculator permitted?

Step 4
Step 3
(continued)

Is there a specific practice exam or exams supplied by the instructor?

Step 4
Step 5
Summary

(continued)

Step 1
▷ (continued)

Will definitions and/or theorems be asked for?

Step 2
Step 3
(continued)

Is any kind of calculator permitted?

Step 4
Step 3
(continued)

Is there a specific practice exam or exams supplied by the instructor?

Step 4
Step 5
Summary

What other information about the content of the exam is there?

Step 2

Step 1
(continued)
▷ Step 2
Step 3
(continued)
Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Gather a large collection of problems and exercises

Step 2

- Step 1
(continued)
- ▷ Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Gather a large collection of problems and exercises

Possible sources:

- recent final exams

Step 2

- Step 1
(continued)
- ▷ Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Gather a large collection of problems and exercises

Possible sources:

- recent final exams

- recent midterm exams

Step 2

- Step 1
(continued)
- ▷ Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Gather a large collection of problems and exercises

Possible sources:

- recent final exams
- recent midterm exams
- problems worked by the instructor in lecture notes

Step 2

- Step 1
(continued)
- ▷ Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Gather a large collection of problems and exercises

Possible sources:

- recent final exams
- recent midterm exams
- problems worked by the instructor in lecture notes
- problems supplied by the instructor for purposes of revision

Step 2

- Step 1
(continued)
- ▷ Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Gather a large collection of problems and exercises

Possible sources:

- recent final exams
- recent midterm exams
- problems worked by the instructor in lecture notes
- problems supplied by the instructor for purposes of revision
- problems assigned during the term

Which sources are best depends on the particular instructor.
Working on recent final exams almost always pays dividends.

Step 3

Step 1
(continued)
Step 2
▷ Step 3
(continued)
Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Classify the problems:

Step 3

- Step 1
(continued)
- Step 2
- ▷ Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Classify the problems:

Some categories for MATH 155:

- the definite integral

Step 3

- Step 1
(continued)
- Step 2
- ▷ Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Classify the problems:

Some categories for MATH 155:

- the definite integral
- area between curves

Step 3

- Step 1
(continued)
- Step 2
- ▷ Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Classify the problems:

Some categories for MATH 155:

- the definite integral
- area between curves
- methods of integration

Step 3

- Step 1
(continued)
- Step 2
- ▷ Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Classify the problems:

Some categories for MATH 155:

- the definite integral
- area between curves
- methods of integration
- numerical approximation of integrals

Step 3

- Step 1
(continued)
- Step 2
- ▷ Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Classify the problems:

Some categories for MATH 155:

- the definite integral
- area between curves
- methods of integration
- numerical approximation of integrals
- Taylor approximation

Step 3

- Step 1
(continued)
- Step 2
- ▷ Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Classify the problems:

Some categories for MATH 155:

- the definite integral
- area between curves
- methods of integration
- numerical approximation of integrals
- Taylor approximation

(continued)

Step 1

(continued)

Step 2

Step 3

▷ (continued)

Step 4

Step 3

(continued)

Step 4

Step 5

Summary

□ solving differential equations

(continued)

Step 1

(continued)

Step 2

Step 3

▷ (continued)

Step 4

Step 3

(continued)

Step 4

Step 5

Summary

solving differential equations

equilibria and their stability

functions of two variables

(continued)

Step 1

(continued)

Step 2

Step 3

▷ (continued)

Step 4

Step 3

(continued)

Step 4

Step 5

Summary

- solving differential equations
- equilibria and their stability
- functions of two variables
- partial derivatives

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- ▷ Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- ▷ Step 4
- Step 3
(continued)
- Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 155

Step 4

Step 1
(continued)
Step 2
Step 3
(continued)
▷ Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 155

$$\int e^x \sin x \, dx$$

Step 4

Step 1
(continued)
Step 2
Step 3
(continued)
▷ Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 155

$$\int e^x \sin x \, dx \quad \text{integration by parts twice}$$

Step 4

Step 1
(continued)
Step 2
Step 3
(continued)
▷ Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 155

$$\int e^x \sin x \, dx \quad \text{integration by parts twice}$$

$$\int_{-2}^2 (1 - |x|) \, dx = 0$$

Step 4

Step 1
(continued)
Step 2
Step 3
(continued)
▷ Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 155

$$\int e^x \sin x \, dx \quad \text{integration by parts twice}$$

$$\int_{-2}^2 (1 - |x|) \, dx = 0 \quad \text{geometrical interpretation}$$

Step 4

Step 1
(continued)
Step 2
Step 3
(continued)
▷ Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 155

$$\int e^x \sin x \, dx \quad \text{integration by parts twice}$$

$$\int_{-2}^2 (1 - |x|) \, dx = 0 \quad \text{geometrical interpretation}$$

$$0.5 \leq \int_0^1 \sqrt{1 - x^2} \, dx \leq 1$$

Step 4

Step 1
(continued)
Step 2
Step 3
(continued)
▷ Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 155

$$\int e^x \sin x \, dx \quad \text{integration by parts twice}$$

$$\int_{-2}^2 (1 - |x|) \, dx = 0 \quad \text{geometrical interpretation}$$

$$0.5 \leq \int_0^1 \sqrt{1 - x^2} \, dx \leq 1 \quad \text{geometrical interpretation}$$

Step 4

Step 1
(continued)
Step 2
Step 3
(continued)
▷ Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 155

$$\int e^x \sin x \, dx \quad \text{integration by parts twice}$$

$$\int_{-2}^2 (1 - |x|) \, dx = 0 \quad \text{geometrical interpretation}$$

$$0.5 \leq \int_0^1 \sqrt{1 - x^2} \, dx \leq 1 \quad \text{geometrical interpretation}$$

area between $y = |x|$ and $y = x^2 - 2$

Step 4

Step 1
(continued)
Step 2
Step 3
(continued)
▷ Step 4
Step 3
(continued)
Step 4
Step 5
Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 155

$$\int e^x \sin x \, dx \quad \text{integration by parts twice}$$

$$\int_{-2}^2 (1 - |x|) \, dx = 0 \quad \text{geometrical interpretation}$$

$$0.5 \leq \int_0^1 \sqrt{1 - x^2} \, dx \leq 1 \quad \text{geometrical interpretation}$$

area between $y = |x|$ and $y = x^2 - 2$ draw a good diagram

Step 3

Step 1
(continued)
Step 2
Step 3
(continued)
Step 4
▷ Step 3
(continued)
Step 4
Step 5
Summary

Classify the problems:

Step 3

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- ▷ Step 3
(continued)
- Step 4
- Step 5
- Summary

Classify the problems:

Some categories for MATH 152:

- evaluating integrals

Step 3

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- ▷ Step 3
(continued)
- Step 4
- Step 5
- Summary

Classify the problems:

Some categories for MATH 152:

- evaluating integrals
- areas between curves

Step 3

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- ▷ Step 3
(continued)
- Step 4
- Step 5
- Summary

Classify the problems:

Some categories for MATH 152:

- evaluating integrals
- areas between curves
- average value of a function

Step 3

Step 1
(continued)
Step 2
Step 3
(continued)
Step 4
▷ Step 3
(continued)
Step 4
Step 5
Summary

Classify the problems:

Some categories for MATH 152:

- evaluating integrals
- areas between curves
- average value of a function
- approximation of integrals

Step 3

Step 1
(continued)
Step 2
Step 3
(continued)
Step 4
▷ Step 3
(continued)
Step 4
Step 5
Summary

Classify the problems:

Some categories for MATH 152:

- evaluating integrals
- areas between curves
- average value of a function
- approximation of integrals
- improper integrals

Step 3

Step 1
(continued)
Step 2
Step 3
(continued)
Step 4
▷ Step 3
(continued)
Step 4
Step 5
Summary

Classify the problems:

Some categories for MATH 152:

- evaluating integrals
- areas between curves
- average value of a function
- approximation of integrals
- improper integrals

(continued)

Step 1

(continued)

Step 2

Step 3

(continued)

Step 4

Step 3

▷ (continued)

Step 4

Step 5

Summary

separation of variables

(continued)

Step 1

(continued)

Step 2

Step 3

(continued)

Step 4

Step 3

▷ (continued)

Step 4

Step 5

Summary

separation of variables

parametric curves

(continued)

- Step 1
(continued)
 - Step 2
 - Step 3
(continued)
 - Step 4
 - Step 3
▷ (continued)
 - Step 4
 - Step 5
 - Summary
- separation of variables
 - parametric curves
 - tests for convergence of series

(continued)

Step 1
(continued)
Step 2
Step 3
(continued)
Step 4
Step 3
▷ (continued)
Step 4
Step 5
Summary

- separation of variables
- parametric curves
- tests for convergence of series
- numerical approximation of integrals

(continued)

Step 1
(continued)
Step 2
Step 3
(continued)
Step 4
Step 3
▷ (continued)
Step 4
Step 5
Summary

- separation of variables
- parametric curves
- tests for convergence of series
- numerical approximation of integrals
- applications of Taylor polynomials

(continued)

Step 1
(continued)
Step 2
Step 3
(continued)
Step 4
Step 3
▷ (continued)
Step 4
Step 5
Summary

- separation of variables
- parametric curves
- tests for convergence of series
- numerical approximation of integrals
- applications of Taylor polynomials
- complex numbers

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 151

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 151

$$\sum_{n=1}^{\infty} \frac{5(-4)^{n+2}}{3^{2n+1}}$$

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 151

$$\sum_{n=1}^{\infty} \frac{5(-4)^{n+2}}{3^{2n+1}}$$

ratio test gives absolute convergence

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 151

$$\sum_{n=1}^{\infty} \frac{5(-4)^{n+2}}{3^{2n+1}}$$

ratio test gives absolute convergence

$$\sum_{n=1}^{\infty} \frac{1}{n + 2^n}$$

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 151

$$\sum_{n=1}^{\infty} \frac{5(-4)^{n+2}}{3^{2n+1}}$$

ratio test gives absolute convergence

$$\sum_{n=1}^{\infty} \frac{1}{n + 2^n}$$

comparison with geometric series $\sum_{n=1}^{\infty} \frac{1}{2^n}$

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 151

$$\sum_{n=1}^{\infty} \frac{5(-4)^{n+2}}{3^{2n+1}}$$

ratio test gives absolute convergence

$$\sum_{n=1}^{\infty} \frac{1}{n + 2^n}$$

comparison with geometric series $\sum_{n=1}^{\infty} \frac{1}{2^n}$

$$\sum_{n=1}^{\infty} \frac{(n+1)(n^2-1)}{4n^3-2n+1}$$

Step 4

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 151

$$\sum_{n=1}^{\infty} \frac{5(-4)^{n+2}}{3^{2n+1}}$$

ratio test gives absolute convergence

$$\sum_{n=1}^{\infty} \frac{1}{n + 2^n}$$

comparison with geometric series $\sum_{n=1}^{\infty} \frac{1}{2^n}$

$$\sum_{n=1}^{\infty} \frac{(n+1)(n^2-1)}{4n^3-2n+1}$$

comparison with the series $\sum_{n=1}^{\infty} \frac{1}{5}$

Step 4

- Step 1
- (continued)
- Step 2
- Step 3
- (continued)
- Step 4
- Step 3
- (continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 151

$$\sum_{n=1}^{\infty} \frac{5(-4)^{n+2}}{3^{2n+1}}$$

ratio test gives absolute convergence

$$\sum_{n=1}^{\infty} \frac{1}{n + 2^n}$$

comparison with geometric series $\sum_{n=1}^{\infty} \frac{1}{2^n}$

$$\sum_{n=1}^{\infty} \frac{(n+1)(n^2-1)}{4n^3-2n+1}$$

comparison with the series $\sum_{n=1}^{\infty} \frac{1}{5}$

$$\sum_{n=1}^{\infty} \frac{(2n)!}{n^n}$$

Step 4

- Step 1
- (continued)
- Step 2
- Step 3
- (continued)
- Step 4
- Step 3
- (continued)
- ▷ Step 4
- Step 5
- Summary

Within each category make sure you know the method used for each kind of problem:

Examples for MATH 151

$$\sum_{n=1}^{\infty} \frac{5(-4)^{n+2}}{3^{2n+1}}$$

ratio test gives absolute convergence

$$\sum_{n=1}^{\infty} \frac{1}{n + 2^n}$$

comparison with geometric series $\sum_{n=1}^{\infty} \frac{1}{2^n}$

$$\sum_{n=1}^{\infty} \frac{(n+1)(n^2-1)}{4n^3-2n+1}$$

comparison with the series $\sum_{n=1}^{\infty} \frac{1}{5}$

$$\sum_{n=1}^{\infty} \frac{(2n)!}{n^n}$$

ratio test

Step 5

Step 1
(continued)
Step 2
Step 3
(continued)
Step 4
Step 3
(continued)
Step 4
▷ Step 5
Summary

Practice, practice, practice

Step 5

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- ▷ Step 5
- Summary

Practice, practice, practice

- Put aside the answers to the problems

Step 5

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- ▷ Step 5
- Summary

Practice, practice, practice

- Put aside the answers to the problems
- Practice actually writing out the answers

Step 5

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- ▷ Step 5
- Summary

Practice, practice, practice

- Put aside the answers to the problems
- Practice actually writing out the answers
- Check that you have obtained the right answer and that your working is enough for full marks

Summary

- Step 1
(continued)
- Step 2
- Step 3
(continued)
- Step 4
- Step 3
(continued)
- Step 4
- Step 5
- ▷ Summary

The same kinds of problems recur again and again on exams

Summary

- Step 1
- (continued)
- Step 2
- Step 3
- (continued)
- Step 4
- Step 3
- (continued)
- Step 4
- Step 5
- ▷ Summary

The same kinds of problems recur again and again on exams

Learn to recognize at once common types of problems **and** have at your fingertips the methods and tricks that go with them

Summary

Step 1

(continued)

Step 2

Step 3

(continued)

Step 4

Step 3

(continued)

Step 4

Step 5

▷ Summary

The same kinds of problems recur again and again on exams

Learn to recognize at once common types of problems **and** have at your fingertips the methods and tricks that go with them

The only way to get the facility you need is to have practiced each category enough

Summary

Step 1
(continued)
Step 2
Step 3
(continued)
Step 4
Step 3
(continued)
Step 4
Step 5
▷ Summary

The same kinds of problems recur again and again on exams

Learn to recognize at once common types of problems **and** have at your fingertips the methods and tricks that go with them

The only way to get the facility you need is to have practiced each category enough

Do not throw away easy points on offer for knowing definitions and theorems

Some links:

Previous years exams

<http://www.math.sfu.ca/ugrad/workshops/aw/exams100.shtml>

<http://www.math.sfu.ca/ugrad/workshops/cw/exams150.shtml>

<http://www.math.sfu.ca/ugrad/workshops/cw/exams151.shtml>

<http://www.math.sfu.ca/ugrad/workshops/acw/exams154.shtml>

<http://www.math.sfu.ca/ugrad/workshops/acw/exams157.shtml>

<http://www.math.sfu.ca/ugrad/workshops/aw/exams232.shtml>

<http://www.math.sfu.ca/ugrad/workshops/cw/exams251.shtml>

Student's guide to first year calculus;

http://www.sfu.ca/~rpyke/math/student_guide.pdf

First Year Mathematics Survival Guide;

<http://www.math.sfu.ca/ugrad/guide1.shtml>