What to do after your first exam

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First

Don’t panic – there is time to learn from this exam to apply to the next exam.
Now, do an error analysis of your exam.

Look critically – with out judgement – at your exam and determine the types of errors.
Types of errors

1. Misread directions
2. Careless
3. Concept
4. Application
5. Test-taking
6. Study
These errors occur when you skip or misunderstand directions and do the problem incorrectly.

**Examples:**
The instructions say graph and label 2 points. You do the graph, but do not label the points.

The instructions say to solve for one variable. You solve for a different variable and stop there.
To avoid these errors:

• Carefully read and interpret all the directions.

• Look for anything that is unusual, or if the directions have two parts.

• If you don’t understand the directions, ask for clarification.

• Remember, your instructor wants you to be able to show what you know. Asking if you need to simplify, or the required form of your answer, etc., are often questions they can answer.
Careless Errors

Mistakes made because you lose complete focus on the question, because you are nervous or in a hurry.

Examples:
Switching a sign by accident in the middle of a problem.
Taking the $\sqrt{4} = \pm 4$

Note: if your answer is off by a sign don’t assume it is a careless error.
Careless Errors

To avoid these errors:
Review your exam carefully.
Re-read the directions, make sure you simplified, double check your calculations
These errors are mistakes made when you do not understand the properties or principles required to work the problem. Concept errors will follow you from test to test if you do not fill in the gaps you have.

**Examples:**

Understanding what it means to solve polynomial equations – graphically and analytically. This doesn’t mean we “switch” the sign.

Understanding when a solution is completely simplified. Why you can’t cancel the x’s in the expression $\frac{x}{x-4}$.
To avoid these errors:
Have a definition section in your notebook.
• Use a Frayer model
• Draw a picture for each one.
Rewrite all key words and their definitions.
Understand what the definitions say and don’t say.
Talk to your instructor, TA, or tutor to fill in any gaps you have with the concepts.
Frayer Model

- Definition
- Example
- Characteristics
- Non-Example
This error happens when you know the concept, but you cannot apply it to the problem. This is common with word problems, deducing formulas and graphing.

**Examples:**

You know how to take a derivative, but don’t know how to find marginal cost.

You know how to identify slope, but don’t know how to graph a line given a line written in standard form.
Application Errors

To avoid this error:

Try to practice appropriate problems.

Work through application problems on your homework (even if they were not assigned).

Practice graphing equations in any form.

Practice deriving different formulas.
Test Taking Errors

1. Missing more questions in the first, second or third part of the exam. Make sure to review that part of the exam on your next exam.

2. Not completing a problem to the last step. Re-read the directions and determine if you answered what the question stated.

3. Changing correct answers to incorrect answers. Look for erased answers on your test. If you have a pattern of changing right answers to wrong answers, only change the answers if you can show the first answer was wrong.
4. Getting stuck on one problem and spending too much time on it. Set a time limit on all problems. If you reach your time limit move on and come back to that problem if you have extra time on the exam.

5. Rushing though the easiest part of the test and making careless errors. If you get points taken off on easy problems more than hard problems, first review the problems you are confident on to make sure you didn’t make a careless error.

6. Incorrectly copying an answer from your scratch paper to your test. Systematically compare your last problem step on scratch paper with your written answer. Also, always hand in your scratch work.
7. **Leaving answers blank.** Do not leave answers blank. Write down the first step or re-write the problem. Make a note about what type of problem it is. Explain what you think is the first step.

8. **Answering only the first-step of a two-step problem.** Revie the exam when you are done and re-read the directions. Match up your answers with what is being asked in the problem.

9. **Note understanding all the functions of your calculator.** Make sure to use the same calculator on your homework. (If you are allowed a calculator)
Test Taking Errors

10. Completing the test early without checking all your answers. There are no extra points for being the first person done with the exam. Take your time and review all your answers.

11. Trying to complete problems in your head. Exams are a conversation between you and your instructor. If you make a careless error because you completed a problem in your head, you are losing the chance to show your instructor what you know.

12. When taking a timed test, not using the last few minutes effectively. Make sure your answers are reasonable. Go back and check the last few minutes before you turn in your exam.
Study Errors:

This error occurs when you study the wrong material or don’t spend enough time on the correct material.

To avoid this error:

Review your exam to find out if you missed problems because you did not practice that type of problem or if you forgot how to do it during the test.

Think about how you used the review materials to prepare for the exam. Did you look at old exams, use any review assignments, do the study guide, etc.
Look for Error Patterns

As you start doing exam analysis, look for error patterns. If you consistently make the same type of errors, practice the different ways to avoid the errors.
Learning how to take exams can be challenging. Look over the material in your notes and see how it related to your exam. Use this information to prepare for your next exam.

After you complete your exam analysis, make sure to correct all the mistakes on your exam. If you still have questions you can’t answer, talk with your instructor or TA.

If you are unsure if you have a complete solution, write it up and visit office hours to talk with your instructor or TA.
Questions?