

Taking the Grind out of Group Grading:

A System to Improve Efficiency, Consistency & Pedagogy

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What is “Online Grading” (in this context...)

- What online grading IS NOT:
 - A robot inside of the computer that does the grading for you
 - (although this is a common misconception of our students...and some faculty)

- What online grading IS:
 - An online platform from which instructors grade exams
 - Tests are scanned in to the system and then graded manually online

Disclaimers!

1. I did not write this program. It was written by Will Schleter, a faculty member in the Engineering Department at UT Knoxville
2. This program is not available for use outside of UT Knoxville; instead my intention is to share our experiences with this grading system in order to inform your decisions with other programs

My Role...

- Serve as liaison between the math department and the creator of the software
- Troubleshoot problems for instructors and graders
- Train administrators, scanners, and graders to implement the software
 - Create and maintain written documentation
 - Produce videos
 - Facilitate in-person training sessions
- Manage logistics of departmental final exam scanning

(I also use the system personally in the classes I teach)

GM Math 125

E: 25 | Unit 2 Test v784 (Sulyok) | sulyok Scan: 8 (4) 13 Prob: 10 (4) Go Next

P Range: C A Mode: Grading Review Setup Calc: 4 + - PDF Stats Map Names Summary Help Admin v325 v784 RG Req

? 0 1 2 3 4 (csulyok)

8/10: +T +S -- C



Enter text here...

20

S

M

L

x



4

10. [4 pts] Find the
- second
- derivative of the function. Use correct notation. Simplify monomial factors.

$$f(x) = e^{3x+12}$$

$$f'(x) = e^{3x+12} \cdot (3)$$

$$f'(x) = 3e^{3x+12}$$

$$f''(x) = 3 \cdot e^{3x+12} \cdot 3$$

$$f''(x) = 9e^{3x+12}$$

$$f''(x) = 9e^{3x+12}$$

11. [5 pts] Use a logarithm expansion rule to
- rewrite
- the function. Then
- differentiate
- . Use correct notation. Simplify monomial factors.

$$g(x) = \ln(\sqrt{9x^2-2}) = \ln((9x^2-2)^{\frac{1}{2}})$$

$$g(x) = \frac{1}{2} \ln(9x^2-2)$$

$$g'(x) = \frac{1}{2} \cdot \left(\frac{1}{9x^2-2}\right) \cdot 18x$$

$$g'(x) = \frac{1}{2} \cdot \frac{18x}{9x^2-2}$$

$$g'(x) = \frac{18x}{18x^2-4}$$

E: 1 | Unit 1A Test v129 (Peery) | react Scan: 22 (0) 376 Prob: 16 (0) Go Next

P Range: C A Mode: Grading Review Setup Calc: 2 + - PDF Stats Map Names Summary Help Admin v129 v273 v549 v000 RG Req

? _ T F (munseren)

22/16: +T +S -- C P'= No answer



Non-Removable

Enter text here...

20 S M L x

14. [2 pts] $f(x)$ is discontinuous at $x = -4$ because the function is not defined at that point.

#16

0

15. [2 pts] Circle True or False. $f(x)$ is continuous at $x = -2$.

TRUE

FALSE

16. [2 pts] Circle True or False. $f(x)$ is differentiable at $x = -2$.

TRUE

FALSE

S:T
K:F (2)

17. [4 pts] Find the limit if it exists. If it does not exist, write DNE.

$$\lim_{x \rightarrow 4} \frac{x-4}{x^2-16} \quad \lim_{x \rightarrow 4} \frac{\cancel{(x-4)}}{\cancel{(x-4)}(x+4)} = \frac{1}{x+4} = \frac{1}{8}$$

$$\frac{1}{8}$$

Benefits -- Efficiency

- Graders can start immediately and admins can monitor progress
- No tallying -- reduces human error
- Return tests without taking up class time
- No lost tests or changes to test after they are returned
- No one is trapped in a room grading; can grade remotely
- Multiple graders can easily grade large numbers of papers without having to shuffle papers around
- Can erase or change comments/scores

Benefits -- Consistency

- Instructors grade a few problems so coordinator can check for grading errors; graders can ask coordinator to view specific questions with ??
- Search for certain grades
- Look at section averages and investigate
- The system takes the grader directly to the correct problem; most of the time the grader does not see student identification information

Benefits -- Pedagogy

- Section Statistics
- Statistics for each problem
- Document of “Most Missed” Problems & Supplemental Materials
- Analyze the progress of repeat students between semesters
- The instructor can always see the test at any point in semester

Testimonials

- “I presently use the online grading program for my class of 35 students. The time that I use to set up the test and scan in student exams is saved in bounds. While I used to spend three to four hours grading a test, I have cut that time down under two hours!”
(Cara Sulyok, Graduate Teaching Associate)
- “From an administrator's perspective, the online grading program has provided insight that was not available previously. In particular, we are analyzing the the progress of students who are repeating a course. We've been able to compare unit test scores from last semester to those from this semester in real time.”
(Malissa Peery, Distinguished Lecturer & Lower Division Chair)

Thank You! Any questions?

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