Calculus I
Spring 2011

Test 1

Name: _____
D. P. Story

Part I. (100 points) Solve each of the problems without error. If you make an error, points will be subtracted from your total score.

(5^{pts}) **1.** This is an example of a objective question, the student fills in his/her response in the space below.

5 pts

(5^{pts}) **2.** An example of a fill-in question: It is well known that _____ and _____ are jointly credited as the founders of modern calculus.

5 pts

($3^{\text{pts}}_{\text{ea.}}$) **3.** *True* or *False*. No justification needed.

(a) _____ If triangles have 4 sides, then all monkeys are green. Now is the time for all good men to come to the aid of their country.

(b) _____ $1 + 1 = 3$ iff $\sqrt{2}$ is a rational number. Now is the time for all good men to come to the aid of their country.

(c) _____ $(\forall x)(\exists y)(xy > 1)$ (x, y real numbers). Now is the time for all good men to come to the aid of their country.

(d) _____ $(\forall x)(\exists y)(\forall z)(z(x + y) > 0)$, ($x$, y, and z real numbers).

12 pts

(15^{pts}) **4.** Here is an example of an auto calculate problem. It takes the optional argument '`[\auto]`'. You specify the points associated with each part using the `\PTs` command.

(a) (10 pts) This a hard one!

(b) (5 pts) This one is "half" as hard.

15 pts

(11^{pts}) **5.** Select the correct answer for each of the following multiple choice. There is only one correct answer.

(a) (5 pts) In what year did Columbus sail the ocean blue?

☐ 1490 ☐ 1491 ☐ 1492 ☐ 1493

11 pts

the total for this page →

42 pts

Problem 5 (cont.) automatic continuation annotation

(b) (6 pts) In what year did Columbus sail the ocean blue?

- ☐ 1490
- ☐ 1491
- ☐ 1492
- ☐ 1493

(5 pts) **6.** Which of the following best describes Augustin Cauchy?

- ☐ He developed the Calculus while his University was closed for the plague.
- ☐ Given credit for first using the functional notation $f(x)$.
- ☐ He created the "bell-shaped curve" and first used the method of least squares.
- ☐ He first formulated a precise definition of the limit and continuity of a function.
- ☐ Gave a rigorous definition of the definite integral—an integral that now bears his name.
- ☐ His notation for the derivative and the integral is used even to this day.

5 pts

(3 pts) **7.** This is a question. Work on the back of page 1, and be quick about it!

3 pts

(7 pts) **8.** This is a question. Now is the time for all good men to come to the aid of their country. Peter Piper picked a peck of pickled peppers.

7 pts

(5 pts) **9.** This is a question worth 5 points.

5 pts

(10 pts ea.) **10.** Answer each of the following questions.

(a) This is a question.

20 pts

total for this page

36 pts

Problem 10 (cont.)

continuation annotation

(b) This is a question.

(12pts) **11.** Solve each of the following. Work on the back of page 2

(a) This is a question. Be sure you don't make any error, I'm watching.

(c) This is a question.

(b) This is a question.

(d) This is a question.

12 pts

New option, parttotalsonleft. Here one exam environment ends and another begins on the same page. This total, is the total for the first exam environment on this page.

22 pts

Part II. (50 points) The following is a short review of previously mastered material.

(5pts) **1.** This is a question.

5 pts

(7pts) **2.** This is a question.

7 pts

(8pts) **3.** This is a question.

8 pts

This total reflects the total for this page for the current exam environment, which is Part II.

The total number of points is the partial total 22pts and the total for the current exam, 20pts. Total of 42pts on this page.

20 pts

(5pts) **4.** This is a question.

5 pts

(10pts) **5.** This is a question.

10 pts

(5pts) **6.** This is a question.

5 pts

(10pts) **7.** This is a question.

10 pts

total for this page

30 pts