

Mathematics 095  
Semester One, 2007-2008  
15 November 2007

EXAMINATION TWO

Instructor \_\_\_\_\_

Student \_\_\_\_\_

<b>Problem</b>	<b>Points possible</b>	<b>Points earned</b>
1	5	
2	5	
3	5	
4	5	
5	10	
6	10	
7	10	
8	15	
9	15	
10	20	
	<b>Total</b> 100	<b>Total</b>

- Show your work for the computations part of this examination (Part III). Even if your answer is correct, if you do not show your work, you will receive zero credit.
- No programmable calculators of any kind. No graphing calculators of any kind. But, scientific calculators are allowed.
- No notes.
- No textbooks.
- No interacting student-to-student.

**I. True/False.** Following these instructions, there are four statements. For each statement, if the statement is true, write the word True in the space provided at the left of the statement; otherwise, if the statement is not true, write the word False in the space provided at the right of the statement. (If you write the word True in some space at the right, you will be given zero credit; similarly, if you write the word False in some space provided at the left, you will be given zero credit.) (5 points each.)

**True**

**False**

- \_\_\_\_\_ 1. When  $221/600$  is written as a percent and rounded off to the nearest  $1/100$ -th of a percent, it equals 36.84%. \_\_\_\_\_
- \_\_\_\_\_ 2. In a recent survey, 125 people were interviewed. Fifty-five of them were planning to vote in the next presidential election for Daffy Duck. So, the percent of the people interviewed who were not planning to vote for Daffy Duck is 56%. \_\_\_\_\_
- \_\_\_\_\_ 3. Twenty miles per hour is 1776 feet per minute. \_\_\_\_\_
- \_\_\_\_\_ 4. The area of a circle whose radius is 3 units in length is less than the area of a square whose sides are 5 units in length. \_\_\_\_\_

**II. Completions.** Following these instructions, there are three incomplete statements. For each of the statements, in the space provided, put the letter corresponding to what you think is the correct answer. (10 points each.)

5. Lonnie and Ronnie recently bought a secondhand sofa. With a 35% discount, the selling price of the sofa, or, that is, the price of the sofa with the discount, was \$368.55. So, the list price of the sofa, or, that is, the price of the sofa without the discount, was \_\_\_\_\_.

(a) \$567

(b) \$129

(c) \$1053

(d) None of (a), (b), or (c).

6. 26,640 minutes is the same amount of time as \_\_\_\_\_.

(a) 15 days 8 hours

(b) 18 days 12 hours

(c) 18 days 5 hours

(d) None of (a), (b), or (c).

7. We are given a right triangle whose hypotenuse measures 10 units and one of whose legs measures 8 units. A circle exists whose diameter has the same measurement as the remaining leg of the triangle. So, the area of the circle referred to is exactly \_\_\_\_\_ square units.

(a) 28.26

(b) 28.27433388

(c)  $3 \times 3 \times \pi$

(d) None of (a), (b), or (c).

**III. Computations.** Write your answers in the spaces provided. And, here, show your work.

8. We are given a right triangle whose sides measure, resp., 7, 24, and 25 units. Situated within that triangle, there is a rectangle whose sides measure, resp., 5, 6, 5, and 6 units.  
(15 points.)

**Write exact measurements to the nearest 1/10-th square unit in decimal form.**

What is the area of the triangle?

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What is the area of the rectangle?

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What is  $\frac{3}{4}$  the area of the region outside the rectangle, but inside the triangle?

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9. Bonnie and Connie have relatives who arranged for them to have two savings accounts which were opened on one, and the same, day. In account one, \$7400 was deposited where it earns 7.5% simple interest; in account two, \$2400 was deposited where it earns  $6\frac{3}{4}\%$  simple interest.  
(20 points.)

**Write exact amounts to the nearest penny.**

In account one, how much interest would be earned at the end of 37 months?

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In account two, what amount would be in the account at the end of 49 months?

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What would be the total interest from the two accounts at the end of 5 years?

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10. Complete the following table of equivalents. Round decimals to the nearest  $1/10,000$ -th. Round percents to the nearest  $1/100$ -th of a percent. And, reduce fractions to lowest terms. (15 points.)

Percent	Decimal	Fraction
14.8%		<del>                    </del>
	0.0148	
		14/8