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ID(Number): $\qquad$
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Circle your section,... 21... 22... 23... 24... 25

Math 1151 Quiz $2 \quad$ Friday, September 21, 2007 Professor Rejto

- This quiz consists of 4 pages. Please enter your name on each of them and do each of the 2 problems.
- This is a closed-book, closed-notes quiz, As per Math. Department policy, only scientific calculators are allowed. In other words, calculators that display several lines are not allowed.
- The total score of this quiz is 27 points. They are distributed among 2 problems.
- If you have the exact answer there is no need to simplify it. You may do it, but you will get no credit for simplification. Please do not give approximate answers, unless the problem asks for one.
- Show all your work! Unsupported answers will get little or no credit.
- You have 15 minutes to complete this quiz. Please do not start untill asked to do so. Anderson Hall Room 270, 0:55 pm. - 1:10 pm.
- GOOD LUCK !

| Problems | Points | Possible |
| :---: | :---: | :---: |
| 1 |  | 14 |
| 2 |  | 13 |
| Problems Total |  | 27 |

$\qquad$

Problem 1. (14 pts. total)

1. (8 pts)

Find $\cos 60^{\circ}$.
2. ( 6 pts.) An area, $A(\theta)$, as a function of the angle $\theta$ is given by

$$
\begin{equation*}
A(\theta)=12 \sin (\theta)(\cos (\theta)+1) . \tag{1}
\end{equation*}
$$

Find, the exact value of $A\left(45^{\circ}\right)$.
Note: Calculators give only approximate values. In other words, do not use your calculator to get this exact value. Note also, this problem is similar but not identical to Example 5.2.8 of our text.

Problem 2. (13 pts. total)

1. (8 pts)

Recall that the $\sin$ function is periodic. Find $\cos \frac{33 \pi}{4}$.
2. ( 5 pts)

Let $\theta$ be a given angle such that

$$
\begin{equation*}
0<\theta<\frac{\pi}{2} \text { and } \sin \theta=\frac{12}{13} . \tag{2}
\end{equation*}
$$

Find the exact value of $\cos \theta$.
Note: This problem is similar but not identical to Problem 5.3.43 on our list.

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