

Quiz 3

MATH 112-017 and 112-019

New Jersey Inst. Tech.

Prof. Nicholas Dubicki

Time Limit: 15 min.

Name: _____

Date: _____

Section: _____

1. Use the double angle formulas to simplify and solve the following integral.

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$$I = \int_0^{\pi} \cos^4(x) \, dx$$

2. Solve the following linear system of equations for the three unknown quantities, x , y , z .

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$$\begin{array}{rcccccl} 1 & = & x & - & 2y & + & z \\ 2 & = & 2x & + & y & + & z \\ 3 & = & 3x & + & & + & z \end{array}$$