California State University Sacramento - Math 101

Make Up Quiz

Name: _____

1) Solve the recurrence relation $a_{n+2} = 10a_{n+1} - 24a_n$ given that $a_0 = 1$ and $a_1 = 2$.

2) Solve the recurrence $a_{n+2} = 8a_{n+1} - 16a_n$ given that $a_0 = 1$ and $a_1 = 3$.

3) Find the number of integers in the set $\{1, 2, \ldots, 210\}$ that are divisible by 3, 5, or 7.

4) Suppose that 80 students played three sports; basketball, soccer, or volleyball. Each student may play one, two or all three sports. If 20 students played basketball, 30 played soccer, 45 played volleyball, and 4 played all three sports, how many students played **exactly two** sports?

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