

8

Math 61 Quiz Week 6 B 10 minutes. Use pen only

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SECTION: Cross one box below

Day \ T.A.	John	Zach	Sam
Tuesday	1A	1C	<input checked="" type="checkbox"/> 1E
Thursday	1B	1D	1F

Problem 1. Circle all the options that apply The recurrence $a_n = 2a_{n-1} + 3$ with initial conditions $a_1 = 7$ is

- (a) linear,
- (b) homogeneous,
- (c) constant coefficient.

Problem 2. Circle all the options that apply The recurrence $a_n = 2a_{n-1} + 3a_{n-2}$ with initial conditions $a_0 = 5, a_1 = 7$ is

- (a) linear,
- (b) homogeneous,
- (c) constant coefficient.

Problem 3. The solution to the recurrence $a_n = 2a_{n-1} + 3$ with initial conditions: $a_1 = 7$ is of the form $a_n = a \cdot r^{n-1} + b$ where $a = \underline{7}$, $b = 3(2^{n-1} - 1)$, and $r = \underline{2}$.

$a_1 = 7$
 $a_2 = 17$