

QUIZ 3 (MATH 61, SPRING 2017)

Your Name:

UCLA id:

Math 61 Section:

Date:

The rules:

This is a multiple choice quiz. You must circle exactly one answer with an ink pen.

If two or more answers are circled, the answer is not accepted.

You are allowed to use only this paper and pen/pencil. No calculators.

No books, no notebooks, no phone, no web access. You **MUST** write your name.

Points: (10 per correct answer)

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Question 1. Golden ratio ϕ is equal to:

$\sqrt{5}$ $1 + \sqrt{5}$ $\frac{1}{2} + \sqrt{5}$ $\frac{1}{2} - \sqrt{5}$ $\frac{1 + \sqrt{5}}{2}$ none of these

Question 2. The binomial coefficient $\binom{14}{7}$ is equal to:

$\binom{14}{6} + \binom{14}{5}$, $\binom{14}{8} - \binom{13}{7}$, $\binom{13}{7} + \binom{13}{8}$, $2\binom{13}{7}$, $\binom{15}{7} - \binom{15}{6}$, none of these

Question 3. The number of anagrams of $AABBAA$ which start with A is equal to

$\frac{6!}{3!}$ $\binom{5}{3}$ $3!2!$ 6 16 24 none of these

Question 4. Which of the following is a LHR:

$a_{n+1} = a_{n+2} - a_{n-2}$, $a_n = a_{n-1} + 1$, $a_{n-1} = a_{n-2} - na(n-3)$, $a_{n+1} = a_n a_{n-1}$, none of these

Question 5. Which of the following sequences satisfies LHR:

$n!$ $2^{\binom{n}{2}}$ n $\frac{F_n}{F_{n-1}}$ $\sin(n)$ $\binom{2n}{n}$ none of these