# UVAMT 2025 - Game Round

- Your task is to guess a hidden quantity, such as "How tall is the Eiffel Tower"?
- In each of the three main rounds, you will guess an **interval**, and you want your interval to contain the correct answer.
- After each round, we will give you a hint, that gives you some information about the correct answer, such as "The base measures 410 feet on each side".
- Correct intervals will be graded on the **difference** between the high and low endpoints of your range. The best correct interval for each round will become a "benchmark" for the next round: all teams must create intervals at least that narrow for all subsequent rounds.
- Each team is allowed one incorrect interval. If you submit more than one incorrect interval, your team is eliminated. Strikes are public (you will know which other teams got a strike).
- After all three hints are given, each team that is still in the game will submit a **point estimate** closest point estimate wins.

### G1. Longest Basketball Shot

According to the Guinness Book of World Records, how many feet long was the longest basketball shot ever achieved? (Only shots that start and end at the same elevation are permissible).

Hint 1: This shot was achieved in a stadium.

Hint 2: This person also made a behind-the-back shot at a distance of 48 feet.

Hint 3: This person made their shot from off the court.

Answer: 113.5 feet

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• The second set will work the same as the first, with one exception: correct intervals will now be graded on the **ratio** between the high and low endpoints, rounded up. As always, the best correct interval for each round becomes a benchmark for the next round.

### G2. Guess The Product

We rolled ten 20-sided dice before the competition. Guess their product.

Hint 1: The arithmetic mean, rounded to the nearest integer, is 10.

Hint 2: The mode is *not* unique: there are two modes, and they sum to 14.

Hint 3: Only three of the dice were at least 10.

Answer: 1,551,312,000

Note: The generated numbers were: 7, 19, 8, 5, 5, 9, 20, 18, 9, 2.

### G3. Peacocks In A Gallon (only if needed, probably will not need)

How many gallons of milk would it take to equal the weight of one adult male peacock? (Our source gave a range of weights; we just used the midpoint.)

Hint 1: There's 16 cups in a gallon.

Hint 2: The feathers only weigh 2/3 of a pound.

Hint 3: A peacock weighs around the same as an eagle.

Answer: 1.22