March Mathness!
In recognition of the annual NCAA basketball tournament known as March Madness, challenge your students to solve these problems.

High School

1. The equations represent the total number of games (G) in a tournament based on the number of teams (n) for single elimination and double elimination.

   - Double elimination tournament: $G = 2n - 1$
   - Single elimination tournament: $G = n - 1$

   Currently the NCAA is a single elimination tournament (Win or go home). How many more games would be needed if the NCAA basketball tournament were to change to a double elimination style tournament? Justify your answer.

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2. Table 2 provides a list of the top 3 men's and women's NIL earnings as of 2025.
   Table 2: NIL Earning

	Name	College	Earnings
	Cooper Flagg	Duke	5.9 million
Men	Braden Smith	Purdue	2 million
	PJ Haggerty	University of Memphis	1.7 million
	Flau'Jae Johnson	LSU	1.5 million
Women	Paige Bueckers	UConn	1.4 million
	Hannah Cavinder	Miami University	$895,000

   Do players potentially have higher earning potential if they choose to stay in college rather than be drafted into either the NBA or WNBA? Use mathematical reasoning to support your answer.

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3. The court for the final four basketball games is designed and built in Amasa Michigan, then shipped to the location the week prior to the games. The court is comprised of 381 panels that are each 4 feet by 7 feet. The official court once created is 140 feet by 70 feet. How many panels are used to create the "out-of-bounds" area? Justify your answer.

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