



**Questions: (\* questions can be used for evaluation)**

1. During the presentation, we demonstrated the cut-in-half strategy for the number-guessing game. For positive integers up to 100, we showed the steps taken by the strategy when the chosen number was 42. In the table shown below, can you show the steps taken when the chosen number is 67?

Question Number	Numbers Remaining	Midpoint	Question	Answer
1	1-100	50	Is it > 50	Yes
2			Is it > ____	
3			Is it > ____	
4			Is it > ____	
5			Is it > ____	
6			Is it > ____	
7			Is it > ____	



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2. Now, can you show the steps taken when the chosen number is 19? How many questions are needed to find the answer?

Question Number	Numbers Remaining	Midpoint	Question	Answer

3. During the presentation, we saw that for numbers up to 1024, we would need ten questions to find the answer. How many questions do we need for numbers up to 1048576?

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