

Will it Happen?

This problem gives you the chance to:

- describe events as likely or unlikely as appropriate
- find the numerical probability of various outcomes of rolling a number cube

What does the future hold?

Select just one of these five words and write it after the following statements.



impossible	unlikely	equally likely	likely	certain
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1. a. If today is Monday, tomorrow will be Tuesday. _____

b. Today you will meet President Lincoln on the way home from school. _____

c. When you flip a coin it will land head up. _____

2. a. When you roll a number cube with faces numbered 1, 2, 3, 4, 5, 6, what is the **numerical** probability of getting the number 4? _____

b. When you roll a number cube with faces numbered 1, 2, 3, 4, 5, 6, what is the **numerical** probability it will land on an odd number?
Explain how you figured it out. _____

3. The faces of one red number cube and one blue number cube are labeled 1, 3, 5, 7, 9, 11.
The two cubes are rolled and the results are added.

What is the **numerical** probability of getting a total of 20? _____
Show how you figured it out.



Will it Happen?	Rubric	
<ul style="list-style-type: none"> • • The core elements of performance required by this task are: • describe events as likely or unlikely as appropriate • find the numerical probability of various outcomes of rolling a number cube. • <p>Based on these, credit for specific aspects of performance should be assigned as follows</p>	points	section points
<p>1. Gives correct answers:</p> <p>a. certain</p> <p>b. impossible</p> <p>c. equally likely</p> <p><i>Partial credit</i> 2 correct</p>	2 (1)	 2
<p>2.a. Gives correct answer 1/6</p> <p>b. Gives correct answer: 3/6 or 1/2</p> <p>Gives correct explanation such as: there are 3 of 6 equally likely possibilities</p>	1 1 1	 3
<p>3. Gives correct answer 2/36 or 1/18</p> <p>Shows work such as: there are 36 equally likely outcomes. and $20 = 9 + 11$ and $11 + 9$</p> <p><i>Partial credit</i> Allow partial credit for some correct work.</p>	1 2 (1)	 3
Total Points		8