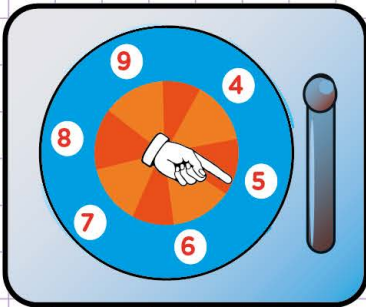


Name: Class:

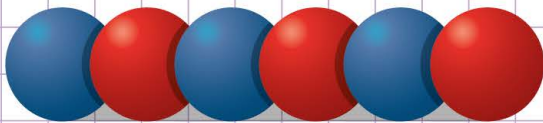
Make predictions.

1. If you spin the spinner 36 times, what is the best prediction possible for the number of times it will land on 7?



Probability is the number of favourable outcomes out of the number of possible outcomes.

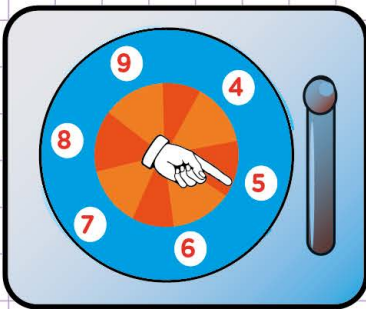
2. You select a marble without looking and then put it back. If you do this 12 times, what is the best prediction possible for the number of times you will pick a red or a blue marble?



Name: Class:

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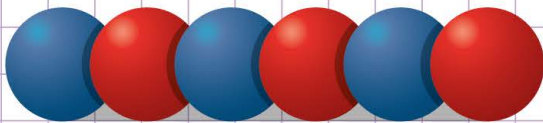
Probability is the number of favourable outcomes out of the number of possible outcomes.

There are 6 possible outcomes because we have 6 numbers. One of the numbers is 7, there is one favourable outcome. So, the probability is 1 out of 6.

$$\text{Probability} = \frac{1}{6} \times 36 = \frac{6 \times 6}{6} = 6$$

The best prediction possible for the number 7 is 6 out of 36 times.

2. You select a marble without looking and then put it back. If you do this 12 times, what is the best prediction possible for the number of times you will pick a red or a blue marble?



The prediction to pick a red marble is $\frac{3}{6} \times 12 = \frac{1}{2} \times 12 = 6$

The prediction to pick a blue marble is $\frac{3}{6} \times 12 = \frac{1}{2} \times 12 = 6$

So, the best prediction to pick any color of marble, whether red or blue is:

6 + 6 out of 12 times = 12 out of 12 times

Therefore, the best prediction possible is 12 out of 12 times.

Or,

Since the probability to pick a red marble or a blue marble is $\frac{1}{2} + \frac{1}{2} = 1$,

the best prediction possible to pick a blue or red marble is equal to $1 \times 12 = \underline{12 \text{ out of 12 times}}$.