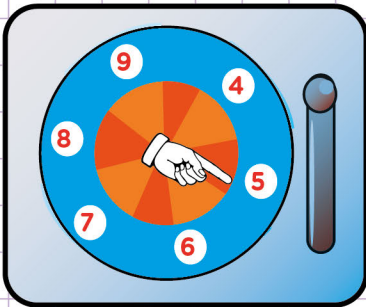


Name: Class:

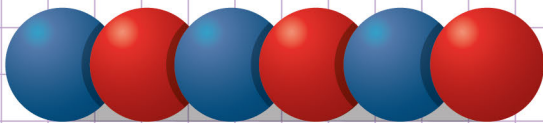
Make predictions

- a. 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.

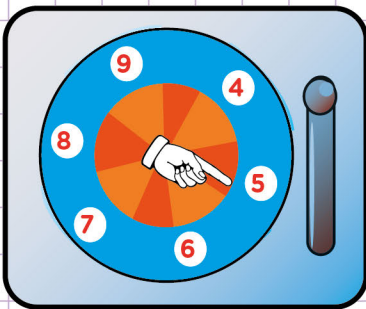
- b. You select a marble without looking and then put it back. If you do this 12 times, what is the best prediction possible for the number of times you will pick a red or a blue marble?



Name: Class:

Make predictions

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



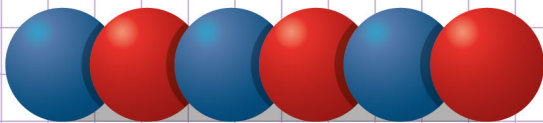
Probability is the number of favourable outcomes out of the number of possible outcomes.

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

- b. 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 $1 \times 12 = \underline{12 \text{ out of 12 times}}$.