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NAME _____   DATE _____

PROBABILITY: Worksheet 1

Find the probability for the following. Give your answer as a fraction in lowest terms and as a percent.

1) A drawer has only 12 socks in it. They are all black. What is the probability of drawing a blue sock?

A bag has 5 red marbles, 4 blue marbles and 1 green marble. If you draw only one marble at random, what are the following probabilities?
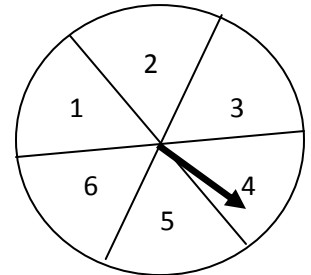
2) A blue marble?

3) A red marble?

4) A green marble?

5) What is the probability the spinner will land on the number 4?

6) What is the probability the spinner will land on a number larger than 2?

7) A cookie jar has 10 chocolate chip cookies, 6 peanut butter cookies and 9 oatmeal cookies. What is the probability that you would randomly take out one cookie and it was a chocolate chip cookie?

8) Fifty tickets were given out at a party for a door prize. Each person at the party had one ticket including Sam. What is Sam's probability of having the winning ticket?

We add favorable outcomes when we use the word "or" in a probability problem.
A bag of marbles includes 2 blue, 6 yellow and 12 red.

9) What is the probability of randomly drawing one marble from the bag and it would be blue **or** yellow?

10) What is the probability of randomly drawing one marble from the bag and it would be yellow **or** red?

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PROBABILITY: Worksheet 1

Find the probability for the following. Give your answer as a fraction in lowest terms and as a percent.

1) A drawer has only 12 socks in it. They are all black. What is the probability of drawing a blue sock?

   0 or 0%

A bag has 5 red marbles, 4 blue marbles and 1 green marble. If you draw only one marble at random, what are the following probabilities?

2) A blue marble? $\dfrac{4}{10} = \dfrac{2}{5} = 40\%$

3) A red marble? $\dfrac{5}{10} = \dfrac{1}{2} = 50\%$

4) A green marble? $\dfrac{1}{10} = 10\%$

5) What is the probability the spinner will land on the number 4?

   $\dfrac{1}{6} = 16.\overline{6}\%$

6) What is the probability the spinner will land on a number larger than 2?

   $\dfrac{4}{6} = \dfrac{2}{3} = 66.\overline{6}\%$

7) A cookie jar has 10 chocolate chip cookies, 6 peanut butter cookies and 9 oatmeal cookies. What is the probability that you would randomly take out one cookie and it was a chocolate chip cookie?

   $\dfrac{10}{25} = \dfrac{2}{5} = 40\%$

8) Fifty tickets were given out at a party for a door prize. Each person at the party had one ticket including Sam. What is Sam's probability of having the winning ticket?

   $\dfrac{1}{50} = 2\%$

We add favorable outcomes when we use the word "or" in a probability problem.
A bag of marbles includes 2 blue, 6 yellow and 12 red.

9) What is the probability of randomly drawing one marble from the bag and it would be blue **or** yellow?

   $\dfrac{2+6}{20} = \dfrac{8}{20} = \dfrac{2}{5} = 40\%$

10) What is the probability of randomly drawing one marble from the bag and it would be yellow **or** red?

   $\dfrac{6+12}{20} = \dfrac{18}{20} = \dfrac{9}{10} = 90\%$