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NAME _____   DATE _____

PROBABILITY: Worksheet 2

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

1) A drawer has only 11 socks in it. They are all black. What is the probability of drawing a black sock?

A bag has 3 red marbles, 9 blue marbles and 8 green marble. If you draw only one marble at random, what are the following probabilities?
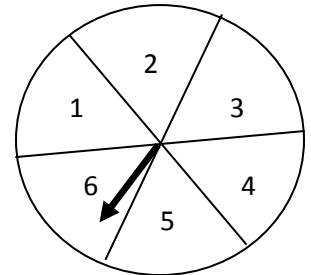
2) A blue marble?

3) A red marble?

4) A green marble?

5) What is the probability the spinner will land on the number 6?

6) What is the probability the spinner will land on an even number?

7) A cookie jar has 16 chocolate chip cookies, 10 peanut butter cookies and 14 oatmeal cookies. What is the probability that you would randomly take out one cookie and it was an oatmeal cookie?

8) The town auto dealership is going to raffle off a car. Five hundred tickets were sold. Only one ticket was allowed per person. What is 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 12 blue, 7 yellow and 6 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 2

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

1) A drawer has only 11 socks in it. They are all black. What is the probability of drawing a black sock?

   1 or 100%

A bag has 3 red marbles, 9 blue marbles and 8 green marble. If you draw only one marble at random, what are the following probabilities?

2) A blue marble? $\dfrac{9}{20} = 45\%$
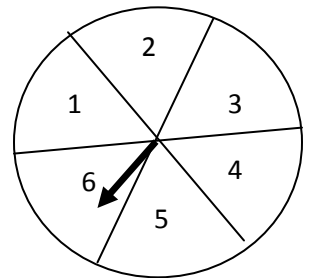
3) A red marble? $\dfrac{3}{20} = 15\%$

4) A green marble? $\dfrac{8}{20} = \dfrac{2}{5} = 40\%$

5) What is the probability the spinner will land on the number 6?

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

6) What is the probability the spinner will land on an even number?

   $\dfrac{3}{6} = \dfrac{1}{2} = 50\%$

7) A cookie jar has 16 chocolate chip cookies, 10 peanut butter cookies and 14 oatmeal cookies. What is the probability that you would randomly take out one cookie and it was an oatmeal cookie?

   $\dfrac{14}{40} = \dfrac{7}{20} = 35\%$

8) The town auto dealership is going to raffle off a car. Five hundred tickets were sold. Only one ticket was allowed per person. What is the probability of having the winning ticket?

   $\dfrac{1}{500} = .2\%$

We add favorable outcomes when we use the word "or" in a probability problem.
A bag of marbles includes 12 blue, 7 yellow and 6 red.

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

   $\dfrac{12+7}{25} = \dfrac{19}{25} = 76\%$

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

   $\dfrac{7+6}{25} = \dfrac{13}{25} = 52\%$