

Name _____

Date _____

Represent Probability as a Number Between 0 and 1

In this worksheet, we will practice representing probability as a number between 0 and 1. **This will involve fractions:** The **total** number of objects in question will be the **denominator**, while the specific object asked about will be the numerator.

For example: There are five cups. Two are red and three are blue. What is the probability that a red cup would be picked at random?

The total number of cups becomes the denominator of the fraction, and the number of red cups becomes the numerator, so the probability of a red cup being picked is $\frac{2}{5}$.

Exercise Questions:

1. There are 12 toys in a toy chest. Three are trucks and nine are action figures.

What is the probability that a truck would be chosen at random to play with?

2. There are 8 balls in the ball basket. Four are basketballs, three are kick balls, and one is a baseball.

If one ball is thrown out the basket at random, what is the probability that it would be a baseball? _____

Use the scenario below to answer questions 3-6.

A refrigerator is stocked with 20 drink cans. Four cans are apple juice, three cans are grape juice, eight cans are orange soda, and five cans are strawberry soda.

What is the probability that:

3. A can of apple juice would be chosen? _____

4. A can of juice would be chosen? _____

5. A can of soda would be chosen? _____

6. A drink can would be chosen? _____



Answer Key

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For example: There are five cups. Two are red and three are blue. What is the probability that a red cup would be picked at random?

The total number of cups becomes the denominator of the fraction, and the number of red cups becomes the numerator, so the probability of a red cup being picked is $\frac{2}{5}$.

Exercise Questions:

1. There are 12 toys in a toy chest. Three are trucks and nine are action figures.

What is the probability that a truck would be chosen at random to play with?

$\frac{3}{12}$ or $\frac{1}{4}$

2. There are 8 balls in the ball basket. Four are basketballs, three are kick balls, and one is a baseball.

If one ball is thrown out the basket at random, what is the probability that it would be a baseball? $\frac{1}{8}$

Use the scenario below to answer questions 3-6.

A refrigerator is stocked with 20 drink cans. Four cans are apple juice, three cans are grape juice, eight cans are orange soda, and five cans are strawberry soda.

What is the probability that:

3. A can of apple juice would be chosen? $\frac{4}{20}$ or $\frac{1}{5}$

4. A can of juice would be chosen? $\frac{7}{20}$

5. A can of soda would be chosen? $\frac{13}{20}$

6. A drink can would be chosen? $\frac{20}{20}$ or 1