Probability Worksheet

1. Seventh graders are playing a game where they randomly select two integers $0-9$, inclusive, to form a two-digit number. The same integer might be selected twice.
a) List the sample space for this chance experiment. List the probability of each outcome in the sample space.
b) What is the probability that the number formed is between $90\ \text{and}\ 99$, inclusive?
c) What is the probability that the number formed is evenly divisible by 5?
d) What is the probability that the number formed is a factor of 64?
2. A chance experiment consists of flipping a coin and rolling a number cube with the numbers $1-6$ on the faces of the cube.
a) List the sample space of this chance experiment. List the probability of each outcome in the sample space.
b) What is the probability of getting a heads on the coin and the number 3 on the number cube?
c) What is the probability of getting a tails on the coin and an even number on the number cube?

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- 1. Seventh graders are playing a game where they randomly select two integers 0-9, inclusive, to form a two-digit number. The same integer might be selected twice.
 - a) List the sample space for this chance experiment. List the probability of each outcome in the sample space.

Sample space: Numbers 00–99 Probability of each outcome is $\frac{1}{100}$.

b) What is the probability that the number formed is between 90 and 99, inclusive?

$$\frac{10}{100'}$$
, or $\frac{1}{10}$

c) What is the probability that the number formed is evenly divisible by 5?

$$\frac{20}{100'}$$
, or $\frac{1}{5}$

d) What is the probability that the number formed is a factor of 64?

$$\frac{7}{100}$$
 (Factors of 64 are 1, 2, 4, 8, 16, 32, and 64.)

- 2. A chance experiment consists of flipping a coin and rolling a number cube with the numbers 1–6 on the faces of the cube.
 - a) List the sample space of this chance experiment. List the probability of each outcome in the sample space.

Sample space: H1, H2, H3, H4, H5, H6, T1, T2, T3, T4, T5, T6 The probability of each outcome is
$$\frac{1}{12}$$
.

b) What is the probability of getting a heads on the coin and the number 3 on the number cube?

$$\frac{1}{12}$$

c) What is the probability of getting a tails on the coin and an even number on the number cube?

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