

Name:

Date:

Probability - Day 2 Worksheet (Theoretical Probability)

EXPRESS ALL ANSWERS AS PERCENTS, FRACTIONS AND DECIMALS

1. Find the probability of each of the following situations:

(a) You toss a coin, what is the probability of seeing tails come up?

(b) You toss a coin twice, what is the probability of seeing both coins show tails?

CREATE A TREE DIAGRAM

(c) You toss a coin three times, what is the probability of seeing only one tail on all three coins?

CREATE A TREE DIAGRAM

(d) You toss a coin three times, what is the probability of seeing at least one tail on all three coins?

(Use the Tree Diagram from part c)

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2. Find the theoretical probability of each situation of rolling a six-sided die:

(a) What is the probability of rolling a 5?

(b) What is the theoretical probability of rolling a 1 or a 2?

(c) What is the theoretical probability of rolling an odd number?

(d) What is the theoretical probability of rolling a number greater than 2?

3. A deck of cards contains 52 cards

There are 4 suits: Spades, Hearts, Clubs and Diamonds. Each suit contains 13 cards: numbered cards 2, 3, 4, 5, 6, 7, 8, 9, and 10, and face cards Ace ("A"), Jack ("J"), Queen ("Q") and King ("K"). Spades and Clubs are black and the Hearts and Diamonds are red

(a) What is the theoretical probability of drawing a red card from the deck?

(b) What is the theoretical probability of drawing a heart card from the deck?

(c) What is the theoretical probability of drawing an even numbered card (2, 4, 6, 8, 10 – of any suit) from the deck?

(d) What is the theoretical probability of drawing a face card from the deck?