

Probability - Secondary 4 and 5

Name: _____

Date: _____

Concepts

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1. A game consists of flipping a fair coin once and then drawing one token at random from a bag containing three tokens marked 1, 2 and 3. The result of the game is the pair (side of the coin, number on the token).

- Explain why this game is a random experiment.
- Write out the sample space Ω and give its cardinality.
- Give the probability of the event E : “the coin shows heads and the token carries an odd number”.

2. A regional weather model announces that the probability of receiving at least 5 cm of snow tomorrow is 0.28.

- Describe the complementary event in words.
- Give the probability of that complementary event.

3. For each statement below, say whether the probability is theoretical, experimental or subjective, and justify your answer in one line.

- a) “A card is drawn from a well-shuffled standard 52-card deck; the probability that it is a face card is $\frac{3}{13}$.”
- b) “I have had a puncture on 6 of my last 150 bike rides, so the probability of a puncture on tomorrow’s ride is about 0.04.”
- c) “This film has a 60% chance of winning the award — the buzz around it is enormous.”

Want the harder problems and the worked solutions?

The *Challenge Problems* set and the *Answer Keys* for Probability - Secondary 4 and 5 — with the reasoning written out in full — are available at tutorinmontreal.ca.