

Probability and Compound Events: math test, Grade 7 – download the PDF

Suggested time: 45 minutes. Out of 20 points. Calculator allowed only when the problem says so.

1 Marbles

/ 3 pts

A bag holds 3 red, 5 white and 2 black marbles. One is drawn at random. Find (a) $P(\text{white})$, (b) $P(\text{not black})$, (c) $P(\text{purple})$.

2 Experiment and prediction

/ 3 pts

A spinner is spun 80 times. It lands on red 22 times, blue 30 times and green 28 times. (a) Find the experimental probability of blue. (b) If the spinner has three equal sections, what is the theoretical probability of blue? (c) Predict the number of reds in 400 spins using the experimental data.

3 Two dice

/ 4 pts

Two fair dice are rolled. Use a table of the 36 outcomes. Find (a) $P(\text{sum is } 5)$, (b) $P(\text{sum is a prime number})$, (c) $P(\text{doubles})$ (both dice show the same number).

4 Pizza orders

/ 4 pts

A pizza shop offers a thin or thick crust and one topping among cheese, pepperoni and veggie. (a) List the sample space or draw a tree diagram. Find (b) $P(\text{thick and veggie})$, (c) $P(\text{thin or pepperoni})$. (d) Out of 120 random orders, how many thin crusts do you expect?

5 A probability model

/ 3 pts

A game has four outcomes: $P(A) = 0.4$, $P(B) = x$, $P(C) = 0.15$, $P(D) = 0.1$. (a) Find x . (b) Find $P(B \text{ or } C)$. (c) In 200 plays, how many times do you expect D?

6 Free-throw simulation

/ 3 pts

A player makes 40% of her shots. To simulate, use the digits 0 to 9. Ten shots are simulated with these digits: 7, 2, 9, 0, 4, 3, 8, 1, 6, 2. (a) Which digits can mean “made”? (b) What is the experimental probability of a made shot in this simulation? (c) Why might it be different from 40%?



Test yourself: quick challenge for Grade 7

Change level

Level : Grade 7

6 random questions, instant feedback.



Start the challenge



Keep exploring with Zyro

 Test solutions

Probability and Compound Events: math test solutions, Grade 7

 Math lessons

Probability and Compound Events: math lesson, Grade 7

 Math practice

Probability and Compound Events: math practice, Grade 7

 Test solutions

Ratios and Proportional Relationships: math test solutions, Grade 7

 Test solutions

Percent Applications: math test solutions, Grade 7

 Math lessons

Ratios and Proportional Relationships: math lesson, Grade 7

Zyro vous emmène sur nos sites partenaires

Embarquez pour d'autres planètes du savoir et leurs applis.

Décollage