

Watch. Practice. Understand. | Lesson 032

Summer Geometry Semester 2 Unit 5 Probabilities

Watch the matching video: <https://www.youtube.com/watch?v=fsafN48SURk>

Practice focus: Basic and compound probability

Original extra practice matched to the listed lesson topic.

Name: _____ Date: _____ Show your reasoning and check units.

01 A bag has 5 red and 3 blue counters. Find $P(\text{red})$ on one draw.

02 Two fair dice are rolled. Find $P(\text{sum} = 7)$.

03 For events A and B, $P(A) = 0.4$, $P(B) = 0.5$, $P(A \text{ and } B) = 0.2$. Find $P(A \text{ or } B)$.

04 A fair coin is tossed 3 times. Find $P(\text{at least one head})$.

Worked answers | Lesson 032

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01 A bag has 5 red and 3 blue counters. Find $P(\text{red})$ on one draw.

5 favorable outcomes out of 8: $P = 5/8$.

02 Two fair dice are rolled. Find $P(\text{sum} = 7)$.

Six ordered pairs have sum 7 among 36 equally likely pairs. $P = 1/6$.

03 For events A and B, $P(A) = 0.4$, $P(B) = 0.5$, $P(A \text{ and } B) = 0.2$. Find $P(A \text{ or } B)$.

$0.4 + 0.5 - 0.2 = 0.7$ by inclusion-exclusion.

04 A fair coin is tossed 3 times. Find $P(\text{at least one head})$.

Use the complement: $1 - P(\text{all tails}) = 1 - (1/2)^3 = 7/8$.