

2025 Sept AMC 8 Week 2 Day 1 - Classical Probability

1 There are three cards with numbers 8, 6, and 10. If any two cards are drawn, the difference that is most likely to occur is _____.

2 There are two dice, one large and one small. Each die has six faces numbered from 1 to 6. When the two dice are thrown simultaneously, what is the probability that the product of the two numbers is 12?

- A. $\frac{5}{36}$ B. $\frac{1}{9}$ C. $\frac{1}{18}$ D. $\frac{5}{18}$ E. $\frac{2}{9}$

3 In the sixth grade of a certain primary school, there are 6 classes, each with 40 students. Two classes are randomly selected from the 6 classes to participate in a live entertainment event hosted by a TV station. During the event, there is one lottery in which 4 lucky audience members are chosen. What is the probability that Bunny, a sixth-grade student, becomes one of the lucky winners?

- A. $\frac{1}{60}$ B. $\frac{1}{20}$ C. $\frac{1}{30}$ D. $\frac{1}{15}$ E. $\frac{1}{10}$

4 A school offers 3 labor-technology courses and 4 art courses. A student selects 3 courses from them. The probability that the student selects at least one course from each category is _____.

- A. $\frac{6}{7}$ B. $\frac{5}{7}$ C. $\frac{4}{7}$ D. $\frac{3}{7}$ E. $\frac{1}{7}$

5 Weier is playing a coin-tossing game: If a coin is tossed 5 times, what is the probability of getting heads no more than twice?

- A. $\frac{1}{2}$ B. $\frac{1}{8}$ C. $\frac{5}{32}$ D. $\frac{1}{32}$ E. $\frac{1}{4}$