

2025 June AMC8 Week 1 Day 2 - Consecutive Reduction

1 (1分) What is the value of $1\frac{1}{2} \times 1\frac{1}{3} \times 1\frac{1}{4} \times 1\frac{1}{5} \times 1\frac{1}{6} \times 1\frac{1}{7} \times 1\frac{1}{8} \times 1\frac{1}{9}$?

- A. 1 B. $\frac{1}{5}$ C. 5 D. $\frac{5}{9}$ E. 10

2 (1分) What is the value of $\frac{1}{2} \times \left(1 - \frac{1}{3}\right) \times \left(1 - \frac{1}{4}\right) \times \cdots \times \left(1 - \frac{1}{100}\right)$?

- A. $\frac{1}{100}$ B. $\frac{1}{2}$ C. $\frac{1}{3}$ D. $\frac{1}{4}$ E. $\frac{1}{99}$

3 (1分) What is the value of $\frac{3}{4} \times \frac{8}{9} \times \frac{15}{16} \times \frac{24}{25} \times \frac{35}{36} \times \frac{48}{49}$?

- A. $\frac{3}{4}$ B. $\frac{8}{25}$ C. $\frac{1}{2}$ D. $\frac{4}{7}$ E. $\frac{48}{49}$

4 (1分) What is the value of $\left(1 - \frac{1}{2}\right) \times \left(2 - \frac{2}{3}\right) \times \left(3 - \frac{3}{4}\right) \times \cdots \times \left(8 - \frac{8}{9}\right) \times \left(9 - \frac{9}{10}\right)$?

- A. $\frac{1}{2}$ B. $\frac{1}{3}$ C. $\frac{1}{10}$ D. 362880 E. 36288

5 (1分) What is the value of $\frac{2^2}{3^2 - 1} \times \frac{4^2}{5^2 - 1} \times \frac{6^2}{7^2 - 1} \times \cdots \times \frac{20^2}{21^2 - 1}$?

- A. $\frac{1}{8}$ B. $\frac{1}{11}$ C. $\frac{1}{20}$ D. $\frac{1}{2}$ E. $\frac{1}{441}$