

2025 June AMC 10 Week 2 Day 3 - Word Problems 2

1 (1分) Alex and Sam are discussing their ages. Alex states, "When I was your current age, you were only 4 years old!" Sam responds, "And when I reach your current age, you will be 61!" What are their current ages?

- A. 42, 23 B. 42, 43 C. 30, 60 D. 21, 32 E. 4, 61

2 (1分) Harold baked a colossal blueberry pie for a barbecue. He first ate $\frac{1}{6}$ of it, then divided the remainder equally among his 4 friends. Each friend ate $\frac{1}{3}$ of their portion. Later, a raccoon arrived and devoured $\frac{1}{5}$ of the remaining pie. Finally, a fox consumed $\frac{2}{9}$ of the raccoon's remaining pie. What fraction of the original pie remains intact?

- A. $\frac{1}{5}$ B. $\frac{2}{9}$ C. $\frac{9}{28}$ D. $\frac{28}{81}$ E. $\frac{34}{81}$

3 (1分) Three cups, Cup *A*, *B*, and *C*, contain 10 grams, 20 grams, and 30 grams of water respectively. A 10-gram solution of sugar water is poured into Cup *A*. After mixing thoroughly, 10 grams of the mixture is transferred to Cup *B*. This process is repeated: 10 grams from Cup *B* is then transferred to Cup *C*. The final concentration of sugar in Cup *C* is 0.5%. What was the initial concentration of the sugar water poured into Cup *A*?

- A. 9% B. 10% C. 11% D. 12% E. 13%

4 (1分) A retail store sells a product at its original price, earning a profit of 25% of the cost price. Later, the store reduces the price to 90% of the original price. Despite this reduction, the total profit increases by 25% compared to the original profit. What is the multiple of the new sales quantity relative to the original sales quantity?

- A. 1 B. 1.5 C. 2 D. 2.5 E. 3

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(1分) Tom took a rope, folded it once, then cut it at the midpoint, resulting in 3 pieces. When he folded the rope twice and cut once at the midpoint, it became 5 pieces. If Tom folds the rope 4 times and cuts 3 times, how many pieces will the rope be cut into?

A. 46

B. 47

C. 48

D. 49

E. 50