

2025 August AMC 10 Week 1 Day 2 - Fractions and Ratios

- 1 (1分) The total number of students in School *A* and School *B* is in the ratio of $4 : 5$.

The number of boys in School A and School B is in the ratio of $2 : 3$.

If School A has 230 girls and School B has 250 girls, how many students are there in total across both schools?

- A. 845 B. 855 C. 865 D. 875 E. 885

- 2 (1分) In a garage, there are some two-wheeled motorcycles and four-wheeled cars. The ratio of the number of vehicles to the number of wheels is $2 : 5$.

What is the ratio of the number of motorcycles to the number of cars?

- A. $3 : 1$ B. $1 : 3$ C. $4 : 1$ D. $1 : 4$ E. $3 : 2$

- 3 (1分) At a school, the number of students in Grade 7 and Grade 8 is the same, and the number of students in Grade 9 is $\frac{4}{5}$ of that in Grade 8.

It is known that the number of boys in Grade 7 is equal to the number of girls in Grade 8, and that the number of boys in Grade 9 accounts for $\frac{1}{4}$ of the total number of boys across all three grades.

What fraction of the total number of students across the three grades are girls?

- A. $\frac{9}{19}$ B. $\frac{10}{19}$ C. $\frac{11}{19}$ D. $\frac{11}{21}$
E. $\frac{10}{21}$

- 4 (1分) The ratio of the number of students participating in a math competition from School A and School B is $7 : 8$, and the ratio of the number of students who won awards is $2 : 3$. Each school has 240 students who did not win an award. How many students participated in the competition in total?

- A. 650 B. 680 C. 720 D. 760 E. 780

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(1分) There are two bags of fruit. Take $\frac{1}{5}$ of the fruit out of Bag *A* and 1103 grams of fruit out of Bag *B*, and the two bags of fruit will weigh the same. Now, if $\frac{1}{2}$ of the remaining fruit in Bag *B* is taken out, the weight of the fruit that is still in Bag *B* will be $\frac{1}{3}$ of the original weight of all the fruit in Bag *B*. In the first place, there are () grams of fruit in the two bags.

A. 6066.5

B. 6068

C. 6076.5

D. 6079

E. 6076