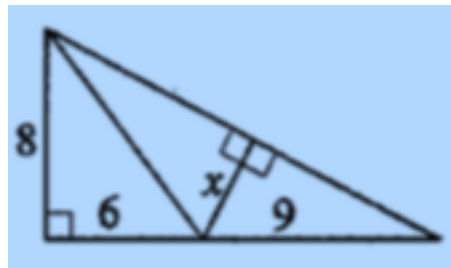


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The following questions are a sample from the Mathematics Leagues Inc. October 13th, 2015 contest:

1. Each vertex of a square is assigned a different positive integer. If the numbers on the endpoints of each diagonal have the same sum, what is the least possible value of this sum? **Answer: 5**
2. Every coin in my piggy bank has a face value of 50 cents, 25 cents, 10 cents, 5 cents, or 1 cent. The bank contains many coins of each type. At most, how much money can I withdraw from my piggy bank without being able to make change for \$1? **Answer: \$1.19**
3. In the big right triangle shown, the lengths of the legs are 8 and 15. How long is the line segment whose length is marked x . **Answer: $72/17$**



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