
MATHCOUNTS

1989-90

■ **School Competition** ■

Target Round

Questions 1 and 2

Name _____

Total Correct	Scorer's Initials

MATHCOUNTS is a cooperative project of the National Society of Professional Engineers, the CNA Insurance Companies, the Cray Research Foundation, the General Motors Foundation, the National Council of Teachers of Mathematics, the National Aeronautics and Space Administration, and the United States Department of Education.

Time: 6 minutes

1. Mary can mow a lawn in four hours and Tom can mow the lawn in 5 hours. If Tom works for 2 hours alone, what fractional part of the lawn remains to be mowed?

1. _____

2. The grade received on a certain teacher's 100-point test varies directly with the amount of time a student spends preparing for the test. If a student receives 72 points on a test for which she spent 3 hours preparing, what score should she receive on the next test if she spent 4 hours preparing?

2. _____

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Questions 3 and 4

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Time: 6 minutes

3. Jack deposited \$200 in his savings account in \$1 and \$5 bills. If he deposited 136 bills, how many \$5 bills did he deposit?

3. _____

4. A city has an assessed valuation of \$8,000,000. The rate for school taxes is 60 cents per \$100 valuation. If all but 4% of the school taxes were collected, how many dollars were still owed?

4. _____

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Questions 5 and 6

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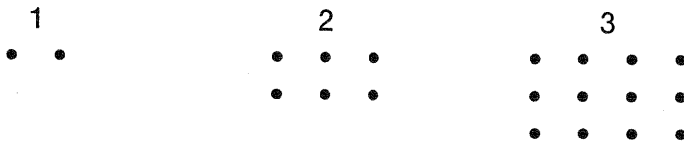
Time: 6 minutes

5. The average of 10 numbers is 85. If the numbers 70 and 76 are removed from the set of numbers, what is the average of the remaining numbers?

5. _____

6. The first figure contains 2 dots, the second 6 dots, and the third 12 dots. If the pattern continues, how many dots would the tenth figure contain?

6. _____



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Questions 7 and 8

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Time: 6 Minutes

7. A jacket priced at \$50 is placed on sale at a discount of 20%. If the discounted price is then reduced another 25%, the new price is what percent of the original price?

7. _____

8. Find a positive integer that is divisible by 18 and whose cube root is a number between 8 and 8.1.

8. _____