

# 2011 Thanksgiving Math Tournament

November 26, 2011

Name: \_\_\_\_\_

Grade: \_\_\_\_\_

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1. What is the mean of the data set  $\{4, 19, 11, 37, 9\}$ ?
2. Tom is 32 years older than Katie, and in 11 years he'll be three times her age. How old is Tom right now?
3. Which of the following numbers is the smallest: 0.01, 0.0001, 0.00000999, 0.0099,
4. What is the hundreds digit of  $123 + 321$ ?
5. If there are 6 kids that are studying both algebra and geometry, 7 kids doing only geometry, and 19 kids doing only algebra, how many kids are there total?
6. Banging your head against a wall burns 150 calories an hour. How many calories can you burn in 30 minutes?
7. A dozen cupcakes take 3 times longer to make than a dozen donuts. It takes Mark 30 min. to make a dozen donuts. How long will it take him to make 2 dozens cupcakes?
8. Emma needs to buy 42 peaches from the market. She can only buy 4 peaches at a time to carry home. How many trips to the market does she need to make to buy all 42 peaches?

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9. 3 consecutive odd numbers add up to 33. Find the median of the three numbers.
  
10. What is the average of the data set  $\{2, 5, 3, 2, 7, 6, 5, 2, 2, 4, 7\}$ ?
  
11. If today is Saturday, what day of the week will it be 111 days from today?
  
12. If Randy drives at forty miles per hour for three hours and sixty miles per hour for two hours, what is Randy's average speed over the entire trip?
  
13. When two marbles are drawn from a bag containing three red marbles and two blue marbles, what is the probability that both marbles are red?
  
14. What is the least common multiple of 21 and 35?
  
15. What is the tenth term of an arithmetic sequence with first term 18 and common difference 7?
  
16. What is the missing term of the sequence 14, 17, 24, 35, 50, \_\_, 92, 119, ...?

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17. What is the area, in square meters, of an equilateral triangle with sides measuring 10 m?
  
  
  
  
  
  
  
  
  
  
18. How many positive three-digit integers are palindromes?
  
  
  
  
  
  
  
  
  
  
19. What is the area, in square meters, of a right triangle with legs measuring 4 meters and 7 meters?
  
  
  
  
  
  
  
  
  
  
20. How many positive integers are factors of 60?
  
  
  
  
  
  
  
  
  
  
21. Homer drove 40 miles in 5 hours. At the same speed, George drives 16 miles. How many hours did George take?
  
  
  
  
  
  
  
  
  
  
22. You have to memorize 500 words in 25 days, and you already know 125 of them. If you memorize the same number of words every day, how many words do you have to memorize per day?
  
  
  
  
  
  
  
  
  
  
23. A certain bacterium doubles every 8 hours. There are currently 3 bacteria in this colony. How many bacteria will be in the colony after 1 day?

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24. Five people share a bag of candy. Ernie takes  $\frac{1}{2}$  of the bag, and then Ajax takes  $\frac{1}{3}$  of what is left. Bert takes  $\frac{1}{4}$  of what is left and John then takes  $\frac{1}{5}$  of what is left. Bob takes the remaining 12 candies. How many candies were in the bag originally?
25. Evaluate as a mixed number:  $14\frac{5}{6} + 21\frac{7}{8}$
26. How many prime numbers are between 60 and 90?
27. If the floor of a room is 10 feet by 10 feet, how many 2 ft by 2 ft tiles fit inside it to cover the floor?
28. Matthew bought 5 dozens eggs for cake baking. How many cakes can he bake if each requires 2 eggs?
29. A puzzle has 52 pieces. If 27 of them are pieced together, 5 are lost, and 3 are broken, how many pieces are left unassembled?
30. Mary and Jerry cut a pie into 12 pieces for Thanksgiving desert. If she took a third for herself and Jerry took a fourth, what fraction of the pie is left?