

2006 McMillan Sixth Grade Math Test

1. Take the number of oranges in a dozen, add the number of inches in a yard, subtract the number of months in a year, and finally divide by the number of quarts in a gallon. What is your answer?
2. There are three children in a family. The oldest is 15. The average of their ages is 11. The median age is 10. How old is the youngest child?
3. If a cabinet is deep enough to fit one textbook, is 3 feet long, and has 3 shelves, how many $1\frac{1}{3}$ inch wide math books can fit in the cabinet (to the nearest whole number)?
4. To the nearest hundredth, what is $\frac{1}{4}$ the area of a circle with a radius of 100 inches? (use 3.14 for π)
5. How many $\frac{1}{256}$ are there in $\frac{1}{16}$?
6. There are five children in a family. Their ages are 4, 5, 6, 9, and 11. Mady isn't the oldest or the youngest. Taylor is the second youngest. Eddy is one of the two oldest children. Michael is the oldest child. How old is Mady?
7. Sean had a dollar left over from the fair. He spent half of it on a bus ride to the store. Sean then bought a banana for \$.15, a piece of candy, and spent \$.25 to call mom to pick him up. Sean returned home with a nickel. How much did the candy cost?
8. Jacob has a dollar. He spends a fifth of it on graham crackers. Then he spends a tenth of what he has left on Laffy Taffy. How much money does he have left?
9. At Indian Home, your meal is made of one appetizer, one entrée, and one dessert. There are 9 appetizers, chicken and fish are your 2 entrée choices. You have 3 desserts; chocolate cake, apple pie, and ice cream. How many different meals can you have at Indian Home?
10. Victoria and Joy walked approximately the same distance. Joy walked the perimeter of a 6 yd x 6 yd square area. Victoria walked the circumference of a circle. To the nearest tenth how long is the radius of the circle Victoria walked? (use 3.14 for π)

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11. Jesse got his paycheck and went to the mall. At the food court he spent \$10. Then Jesse spent $\frac{1}{4}$ of his money left at Spencer's. Later he spent $\frac{1}{3}$ of his remaining money at York's for a gift for his girlfriend. Jesse donated \$2 to charity. Jesse lent Leigh \$1 for bus fare. With the money he had left, Jesse used $\frac{2}{3}$ of it for a new shirt. Once done shopping, Jesse had \$7 left. How much was Jesse's paycheck?

12. Rodney is saving to buy a \$500 motorbike. He has \$170 in the bank. Last week he found a dollar on the ground, his grandma gave him \$40 for his birthday, and he mowed the neighbor's lawn for an additional \$14. If Rodney receives \$5 a week for an allowance, how many weeks until he has enough money for the bike?

13. Kendra scored a 90% on her test, Josh scored an 88%, Camara scored a 92%, and Evan scored a 94%, while Cha and Samantha both scored a 95%. What is the average score of all the tests rounded to the nearest whole percent?

14. At Bag 'n Go 13 items can fit into a paper bag and 7 items can fit into a plastic bag. If Steve has 100 items, how many different combinations of paper and plastic bags can be used if each bag is full?

15. Marissa has a square plot of land with a side 100 ft long. She wants to fence her entire yard with posts every 10 feet. How many posts does she need?

16. How many possible 3- number combinations are there on a 50 number lock?

17. What is the radius of a circle that has a circumference of 94.2 cm? (use 3.14 for π)

18. If there are 35 rows of corn and 17 stalks in a row with 3 ears of corn per stalk, how many ears of corn are in the field?

19. If Nike produces 1900 pairs of shoes in 15 minutes, how many pairs of shoes will they produce in 2 days and $\frac{1}{2}$ hour working around the clock?

20. Drew has \$135. He spends $\frac{1}{3}$ of his money on a game. He takes 10% of what he has left and buys a sandwich at Subway. Then he puts \$10 in a

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bank account. Then he buys dinner at Chicago in downtown. He spends \$30 on that meal. How much money did he spend at Subway?

21. You're in the lunch line. There is a very long line, but you see your best friend. She is three people in front of the boy in your math class, Kevin. Your best friend is also two people behind a girl you absolutely don't like, Sarah. You are five people in front of the absolute last person. Kevin is seven people in front of you. How many people are between you and you're your best friend?

22. Find the sum of every consecutive number 1 through 100?

23. Cassidy went to Sonic to buy lunch for herself and her friends. A slushy costs $\frac{1}{3}$ of the price of a hamburger. She bought 4 sodas and 3 hamburgers. The total cost of all the food was \$12.61. How much money does a hamburger cost?

24. In lowest terms, what is the probability of drawing an ace from a standard deck of cards (jokers excluded)?

25. What is the tenth number in this sequence? 9, 36, 81, 144, 225, ...

26. Camara's uncle is three times older than Camara plus $\frac{1}{4}$ of Camara's age. Camara's dad is three years younger than Camara's uncle. If Camara is sixteen years old, how old is her dad?

27. Find the cube root of 343. Add the number of cookies in a baker's dozen. Subtract the number of pints in a gallon. Multiply by the number of cups in two gallons. What is your answer?

28. Steve works at the University of Nebraska at Omaha. He earns \$5.24 per hour working in the cafeteria. His normal shift is from 8:00am until 5:00pm on Mondays, Tuesdays, Thursdays, and Fridays with an hour paid lunch. If he works his normal shift, how many full weeks will it take Steve to earn \$1,509.12 so that he can put a down payment on a new car?

29. Matthew wants to buy a car that costs \$27,999. The dealership requires a 3% down-payment before he can take the car home. How much will the down-payment be?

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30. Nathan is buying notebooks for school. Eight notebooks cost \$6.48 including tax. If Nathan buys the maximum amount of notebooks possible for \$5, how much change will he receive?
31. There are 5 glazed, 6 jelly-filled, 4 chocolate sprinkled, 5 coconut, and 4 plain doughnuts in a box. Evan closes his eyes and chooses a doughnut at random. What are the chances that Evan will choose either a chocolate sprinkled doughnut or a plain doughnut?
32. There is a 38 oz block of cheddar cheese on Sam's kitchen counter. Unfortunately, there is a mouse on the loose in the house. The mouse can only carry 2 oz of the cheese in one round-trip to his hole, which takes about 4 minutes. The mouse knows that at precisely 12:00, Sam's cat will be back from the vet and stop him from taking any more cheese. If it is 11:20 now, how much cheese in pounds will the mouse be able to get into his hole before the cat gets home?
33. The cross-country team held a race among themselves yesterday. Unfortunately, Joe had science homework, and didn't get there until it was over, but he still wanted to know who placed where. By listening to the chatter of the crowd, Joe learned that: runner A was not one of the first three, runner C was behind runner E, runner D was ahead of runner E, runner C was one of the top three runners, and runner A was not last. Place the runners in order first to last.
34. Find the mean of the following numbers: 10, -18, 6, -12, 14
35. Jermaine selects a piece of candy at random from a bowl containing four peanut butter cups, two hershey's kisses, five pieces of bubble gum, and one pack of smarties, what is the probability that he will choose a piece of candy with chocolate?
36. Find the area in yards of a triangle with base $1\frac{1}{3}$ yards and height 54 inches.
37. Jack's basketball team lost to Nathan's by 30 points. If each team had scored one additional 3-pointer, the total points scored would have been 100. How many points did Nathan's team score?
38. List the prime factorization of 1836 using exponents.

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39. A number n is greater than 16 but less than 22. N is three less than a number m . M is not divisible by four, but is divisible by three. Both are whole numbers. What is the value of n ?
40. A square has a perimeter of 32 inches. What is the area of this square?
41. What is the least common multiple of 600 and 1260?
42. Find the number which has the greatest value: 0.8^2 , $2/3$, 65%, 0.625, $3/5$
43. Solve using order of operations: $3 + 5 (6 - 10) \div (3^2 - 5)$
44. Find the number in the ones column of 2 to the 120^{th} power.
45. Find the next number in the pattern: 1, 5, 13, 29, 61...
46. 32% of what number is 272?
47. What is the sum of the first 10 prime numbers?
48. Find the sum of the perimeters of the following: a square with sides 4cm, a regular nonagon with sides 5cm, a regular pentagon with sides 6cm, and a regular octagon with sides 7cm.
49. What is the GCF of 54, 96, and 144?
50. Simplify $3 + 6 \div 2 \cdot 5^2 - 12$
51. Find the sum of $5! + 4! + 3!$
52. Solve the equation $3x + 2 = 3 + 2x$
53. Solve: $5 \frac{2}{3} \cdot 7 \frac{1}{2}$
54. Find the median of the data: 72in, 69in, 74in, 75in, 70in, 73in
55. Solve $3 (x + 12) = 96$

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56. What is the difference in the area of a triangle with base 15in and height 20in when compared to the area of a circle with radius 10in? (use 3.14 for π)

57. How many minutes are there in $1 \frac{1}{4}$ years if it is not a leap year.

58. 128 apartments are numbered consecutively with individual metal numbers beginning with the number 1. How many metal digits are needed to number the apartments?

59. What is the product of the number of pounds in a ton and the number of cups in a gallon?

60. Simplify $2 + 6 \cdot 8 - 3$.

Tie Breaker: Estimate the number of years Ms. Colton has taught at McMillan multiplied by the number of students enrolled at McMillan divided by the number of secretaries at McMillan.