

First name: _____ Last name: _____

Student ID: _____

Word Problems 2 Homework

1. In the sandwich store Metro, customers pick one choice from the protein section, two choices from the vegetable section, and one choice from the sauce selections. How many unique sandwiches are there?

Protein: fried tofu, chicken, beef, falafel, lamb.

Vegetable: lettuce, tomato, cucumber, spinach, corn.

Sauce: hot sauce, mayonnaise, sweet soy sauce, maple syrup.

2. While eating out, Mike and Joe each tipped their server \$2. Mike tipped 10% of his bill and Joe tipped 20% of his bill. What was the difference, in dollars, between their bills?

3. There are 20 billion bacteria in John's mouth, so before going to bed, he rinsed his mouth thoroughly with a mouth wash that kills 99% of germs. This type of bacteria doubles its number for every 2 hours, how many bacteria will there be in John's mouth in the morning after an 8-hour sleep?

4. Soda is sold in packs of 6, 12 and 24 cans. What is the minimum number of packs needed to buy exactly 90 cans of soda?

5. Chris' birthday is on a Thursday. What day of the week will it be 60 days after his birthday?

6. Meritus academy's auditorium has capacity of 400 persons. Each teacher can help up to 12 parents at a time. What is the maximum number of parents that the school can help in the auditorium?

7. Robert builds a wall made from bricks. Each layer has exactly three more bricks than the layer immediately above it. If the wall has five layers, how many bricks will the top layer have if the total number of bricks in the wall is 80?

8. A baseball player's batting average is obtained by dividing the number of hits by the number of tries. A player has already had 100 hits in 400 tries. If he still has 200 more tries until the end of the season, how many more hits does he need in order to end the season with a batting average of 0.300?

9. The mother, the father, and the grandma each takes 2 vitamin tablets a day while the daughter Jasmine takes only 1 a day. A full bottle of tablets lasts 24 days for all 4 of them. How many days will a full bottle last if Jasmine also takes 2 tablets a day?

10. The word EXAMINATION must be centered on a line containing 79 spaces. If there is exactly one space between each pair of letters, how many spaces must be inserted in front of the word?

11. You begin a new job in which you make children's toys. Because you improve as you learn how to do your work, each day you can make 2 more toys than the previous day. You made 45 toys during the 5-day work week, how many toys did you make on the fourth day?

12. It takes 10 hours to fill the tank with the first pipe, 12 hours using only the second pipe, and 15 hours using only the third pipe. A pressure problem cuts the flow capacity of these pipes in half. How long will it take to fill the tank using the three pipes together.?

13. How many distinct real numbers x satisfy the equation $(x^2 - 6)^2 = 25$?

14. Dean averages 55 km/h for the first 10 km of his trip and averages 70 km/h for the next 30 km. What was his average speed in kilometer per hour for the entire trip?

15. What is the triangle formed by line $y = 6$ and $y = x$?

