Set 5 - All, Bakery

(no calculator)

1. Lila said that the package of new baking equipment probably weighed about 3.5 US tons. She is obviously exaggerating. About how many ounces is that?
    a. 112,000 ounces.
2. A cube-shaped cake has a dimension of 8 inches. If about a teaspoon of frosting is needed to cover each square inch of the surface area of the cake, excluding the bottom of the cake, how many teaspoons of frosting are needed to cover the whole cake?
    a. 320 teaspoons
3. Cube-shaped cakes are being cut in half diagonally to serve on fancy platters in a luxury restaurant. If the top face of the cake has an area of 16 square inches, what is the length of the longest side of the top face of the cake after the cake is cut in half diagonally?
    a. $4\sqrt{2}$
4. By using some friends, some wires, and some poles, Lila is cutting pieces of cake into triangular shapes. If the angles made by Lila and Viktor add to 90 degrees, and the angles made by Lila and Amira add to 120 degrees. If one of the friends has a 90-degree angle at their corner of the triangle, what is the angle made by Lila?
    a. 30 degrees
5. The bakery will charge organizations for catering. One organization was charged $335 for three hours of catering, and another organization was charged $435 for five hours of catering. What is the base rate and the hourly rate for the catering?
    a. $185 base rate and $50 hourly rate. (Students can be asked to specify their answer if they only provide numbers)

(calculator allowed)

6. The middle layer of a cake is being filled with a blueberry jam filling. The middle layer has a radius of 5 inches and a height of 3 inches. If Lila cuts out a circle that has a radius of 2.5 inches all the way through, to the nearest whole inch, what volume of the original cake layer is left?
    a. 177 cubic inches, accept 56π cubic inches
7. Find the mean number of cupcakes sold. On the weekends, 48 cupcakes were sold each day. On weekdays that started with the letter T, 32 cupcakes were sold each day. On the remaining days of the week, 25 cupcakes were sold per day. To the nearest whole number, the mean number of cupcakes sold is…?
    a. 34
8. By rolling two fair six-sided dice and adding up their sums, out of all possible outcomes in the sample space, how many of the outcomes will give you an odd number?
    a. 50%, 18/36, accept 9/18, ½
9. On the normal distribution of weekly sales, there is a mean of $2,100 and a standard deviation of $105.50. If last week the bakery made $2,450 in sales and this week, they made $2,390 in sales, to the nearest tenth, what is the decrease in the z-score from last week to this week?
    a. 0.6 decrease.

10. Views on a social media post made by Viktor for the bakery grow exponentially, increasing by a certain percent each day. If 5 days after the post was made, there were 475 views, and 6 days after it was posted, there were 570 views, to the nearest whole number, how many views are there 14 days after the post was made?
    a. 2,451 views. (DO NOT ACCEPT 2450; you must follow rounding rules).