**Choose the letter of the correct answer. In all cases, NOTA means “none of these answers.”**

1. Michael counted turkeys, where . Find

**A) 5 B) 15 C) 20 D) 40 E) NOTA**

2. Taylor is trying to find an outfit to wear to the Thanksgiving party. To open the lock on her closet, she has to find the GCF of 63 and 81. What number does Taylor need to find?

**A) 3 B) 7 C) 9 D) 567 E) NOTA**

3. In order to get to the Thanksgiving feast, the Native Americans have to create a straight path through the woods from their village at (4,3) to the feast at (5,6). Write the equation of the line that creates a direct path from the village to the feast in Slope-Intercept Form.

**A)**

**B)**

**C)**

**D)**

**E) NOTA**

4. The pilgrims want to make sure they have pies of many different sizes, so they are calculating the area of each pie. They want to calculate the area of a cherry pie that they know has a diameter of 8 inches. Assume the pie is a perfect circle and use 3.14 as an approximation for

**A) 16inches2 B) 25.12 inches2 C) 50.24 inches2**

**D) 200.96 inches2 E) NOTA**

5. Nilay is at the Chiles Mu Alpha Theta Thanksgiving party and is first in line to get food. (No surprise there.) Mr. Friedlander tells him that he can only eat if he factors . What is one factor of 2?

**A) B) C) D) E) NOTA**

6. Nilay gets the question right and piles food 630 inches high on his plate. What is the sum of the unique prime factors of 630?

**A) 17 B) 20 C) 23 D) 70 E) NOTA**

7. Jamie is in charge of putting fortune cookies on each table for his non-traditional Thanksgiving celebration. The number of fortune cookies Jamie puts down is a multiple of three. Which of these numbers could be the number of fortune cookies Jamie put down?

**A) 7356 B) 3334 C) 8570 D) 9275 E) NOTA**

8. The Native Americans leave a trail so they can find their way back through the woods. They leave acorns every few feet. The first time they leave 729 acorns. Then they leave 243 acorns. The third time, they leave 81. How many acorns do they leave the 5th time?

**A) 9 B) 12 C) 16 D) 27 E) NOTA**

9. The boys give Arya trash duty. Find the number of trash bags she took out if it is equal to the larger solution of

**A) 1 B) 7 C) 8 D) 15 E) NOTA**

10. What is ?

**A) -5 B) -3 C) 3 D) 5 E) NOTA**

11. Nilay hears there is a secret stash of extra food. He starts at (3,2), walks 6 units to the right and 8 units up, and ends at another point, where the food is located. Find the length of the shortest path Nilay could have taken to the food.

**A) 10 units B) 12 units C) 14 units D) 100 units E) NOTA**

12. If a🞴b, then what is 5🞴3?

**A) -6 B) -4 C) 26 D) 28 E) NOTA**

13. Jamie is trying to watch his figure, so he can only eat .00000056 of a slice of pumpkin pie. Write .00000056 in scientific notation.

**A) B) C)**

**D) E) NOTA**

14. The midpoint of (3,2) and (9,10) is . What is ?

**A) -3 B) 18 C) 30 D) 52 E) NOTA**

15. On Thanksgiving, Puneet and Katherine will have been dating for months. How long will they have been dating if ?

**A) 1.5 B) 6 C) 8 D) 16 E) NOTA**

16. What is the value of 15533?

**A) -165 B) -103 C) 57 D) 181 E) NOTA**

17. What is the units digit of 320?

**A) 1 B) 3 C) 7 D) 9 E) NOTA**

18. The original Thanksgiving feast was held years ago. What year was this feast?

**A) 1593 B) 1594 C) 1620 D) 1621 E) NOTA**

19. On the way to America, the Mayflower traveled at a constant speed of two miles per hour. The voyage took 66 days. Using this information, how many miles did the Mayflower travel on its way to America?

**A) 132 B1584 C) 2108 D) 3168 E) NOTA**

20. Amelia’s mother was born on Thanksgiving Day in a Leap Year. In a Leap Year, what are the odds of being born on Thanksgiving?

**A) 1:365 B) 1:366 C) 365:1 D) 366:1 E) NOTA**

21. Before attending the feast, Sarah has to choose a dress, a pair of heels, a sweater, and a necklace to wear. She has three dresses, five pairs of heels, three sweaters, and four necklaces. How many different outfits can she make by choosing one of each?

**A) 15 B) 60 C) 120 D) 180 E) NOTA**

22. To find the number of ears of corn Sampath ate, you can calculate the sum of the following series:

How many ears of corn did Sampath eat?

**A) 2 B) 8 C) 77 D) 150 E) NOTA**

23. Sampath will eat too much if his food is not rationed out. The number of slices of turkey he is allowed to have for dinner can be expressed by the given inequality:

Find the greatest possible number of slices that Sampath can have assuming he must eat a whole number of slices.

**A) 5 B) 6 C) 8 D) 10 E) NOTA**

24. Sampath was a disobedient child and ate WAY more than his rationed number of slices of turkey. He is now weighs pounds. How many pounds does Sampath weigh now?

**A) 96 B) 176 C) 224 D) 288 E) NOTA**

25. To get to the place where the feast is being held, Justin follows the path of the line

. To get to the same location, Jeffrey follows the path of the line . What is the product of the abscissa and the ordinate of the feasting area (the point where the two lines intersect)?

**A) -27 B) -6 C) 21 D) 44 E) NOTA**

26. What is the degree of the following polynomial?

**A) 9 B) 11 C) 13 D) 15 E) NOTA**

27. Siddu finds the expression carved into the table. If he expands the expression into a trinomial in the form , what is , where a, b, and c are relatively prime?

**A) -126 B) -83 C) 83 D) 126 E) NOTA**

28. Arya is getting ready to go to the feast that begins at 4:30 p.m. She lives exactly 1.5 miles away from the dining room. To be at the dining room between five and six minutes early, what time must Arya leave her house if she walks at a constant and consistent pace of 60 inches per second?

**A) 3:57 p.m. B) 3:58 p.m. C) 3:59 p.m. D) 4:03 p.m. E) NOTA**

29. Amelia is in charge of bringing baskets of corn to the big feast. So far, there are seven baskets with an average of exactly 48 ears of corn in each. How many ears of corn should there be in the eighth basket so that the new average is exactly 50 ears of corn for all eight baskets?

**A) 34 B) 52 C) 56 D) 64 E) NOTA**

30. Amelia and Sarah put many hours of work into writing this test. Then, they and others spent many more hours editing it. In the following inequality, the number of hours spent making this test is represented by x. Solve for x assuming x is positive.

**A) B) C) D) E) NOTA**