Choose the letter of the correct answer. If the correct answer is not there, choose E) NOTA (none of these answers). You have one hour to complete this test. Correct answers are worth 5 points, answers left blank are worth one point, and incorrect answers are worth no points.

1. Farrah and Tiffany decide that they want to play hide and seek, but they do not know how many friends to invite. Farrah invited three friends and each of them invited three more friends. Tiffany on the other hand, invited two friends who each invited four friends. How many people, including Farrah and Tiffany, have been invited to play?

**A) 12 B) 14 C) 22 D) 24 E) NOTA**

1. Tiffany and Farrah decide to start setting up for the game of hide and seek. Setting up takes each of them of an hour. Since they are working together, they can finish setting up in half the time. How many seconds does it take them to set up if they work together?

**A) 20 B) 40 C) 1200 D) 2400 E) NOTA**

1. While setting up for the game, Farrah and Tiffany stumble across a rug with angles that have a sum of 180 degrees. What is the shape of this particular rug?

**A) circle B) pentagon C) rectangle D) triangle E) NOTA**

1. To enter the house, Jessie (the president of MAO-landia), has to answer a riddle. Given this, here is the riddle;

I am a 2-digit number

I am a palindrome

I am also prime

What is my units digit?

**A) 1 B) 3 C) 5 D) 7 E) NOTA**

1. Upon entering, everyone must change into a onesie, a pair of fuzzy socks, and a night cap. Jamie G. is really sad because he has to part with his favorite blue jacket. If there are 5 different onesies, 3 different pairs of socks and 2 different nightcaps, how many possible combinations are there if you must wear only one of each?

**A) 10 B) 20 C) 30 D) 40 E) NOTA**

1. In order to spice things up, Amelia proposes that the person who is “it” should count down by something other than one... What is the next number in the sequence below?

390, 377, 364, 351…

**A) 328 B) 334 C) 338 D) 340 E) NOTA**

Use this information for both questions 7 and 8:

Before finally starting the game, Jamie G., whose favorite color is blue, decides to measure everyone’s height. Listed below are the different heights of six their friends.

58 inches, 4.5 feet, feet, 56 inches, feet and 60 inches

1. What is the tallest height among these six friends?

**A) 58 inches B) feet C) 60 inches D) 4.5 feet E) NOTA**

1. What is the shortest height among these six friends?

**A) 58 inches B) feet C) 60 inches D) 4.5 feet E) NOTA**

1. President Jessie of MAO-landia can spot Jamie G. in his blue jacket from across the house! Jessie likes to keep track of what’s happening in the game. Of the people hiding, Jessie sees that six people have been found and eighteen still remain. What percentage of people have NOT been found yet?

**A) 25% B) 33% C) 67% D) 75% E) NOTA**

1. Samantha is “it”, and she is running around the house in the shape of a square. Each side length of this square is 12.5 feet. What is the positive difference between the area and the perimeter of the square?

**A) 100.25 B) 106.25 C) 150.5 D) 156.25 E) NOTA**

1. While playing, Jessie, a great president, kept count of how many times a person was found. What is the mean number of times someone was found?

|  |  |
| --- | --- |
| Nicholas | 3 |
| Nick | 10 |
| Nith | 4 |
| Nathan | 6 |
| Nilay | 6 |
| Niehoff | 1 |
| Natalie | 2 |
| Niral | 8 |

**A) 5 B) 6 C) 7.2 D) 9 E) NOTA**

1. The total number of possible places to hide is the value of

10² - [5(-3 + 12 ÷ 2 + 1)] + 23. How many possible places are there to hide?

**A) 16 B) 95 C) 103 D) 118 E) NOTA**

1. While hiding behind a bush, Chamara sees an ice cream truck and yelps in joy. Kevin, Justin, and Jason come running over to buy ice cream upon hearing Chamara yelp. The four of them each want an ice cream cone. Each ice cream cone is $4. The cones are each buy one get one half off. If they decide to split the cost evenly, how much do each of the boys pay?

**A) $2.75 B) $3 C) $3.25 D) $4 E) NOTA**

1. Jamie G. didn’t want an ice cream cone because he is always cold. His favorite color is blue though. Now nobody wants to be “it” because they’re all too busy eating ice cream. He proposes that they use math to find a solution to this problem. He says that the first one to get this problem wrong is “it”! Hurry and solve this problem so that it is not you. Here is the problem: what is 6.3 2.71 rounded to the nearest tenth?

**A) 17.0 B) 17.073 C) 17.1 D) 17.2 E) NOTA**

1. Samantha was the last one to solve the problem so now she’s “it”. As soon as she starts counting down, Nick runs towards the nearest tree to hide. Sadly, Nick doesn't know how to climb a tree; he can only jump. If Nick is 1.75 yards tall and the lowest branch is 6 feet above the ground, how high does Nick need to jump in order to reach the branch?

**A) 0.75 inches B) 4.25 inches C) 6 inches D) 9 inches E) NOTA**

1. While hiding, Brian wonders if he should run to a different spot. To help him decide, he is going to roll a standard six sided die. If he rolls a composite number greater than 2, he will run to a different hiding spot. What is the probability that Brian will run to a different spot?
2. **B) C) D) E) NOTA**
3. Two minutes after the game has begun, Kathryn, Jamie L., Doreen, and Stacy have already been found! If Kathryn was not found third or fourth, Stacy was found before Jamie L., and Doreen was found before Kathryn, who was found first?

**A) Doreen B) Jamie L. C) Kathryn D) Stacy E) NOTA**

1. Daniel, Ben and Jeffery decide to hide in big boxes, not realizing that they were filled with feathers! They all jump in the boxes at the same time and start sneezing, but they are only found if they all sneeze in unison. If Daniel sneezes every 15 seconds, Ben sneezes every 40 seconds, and Jeffery sneezes every minute, how many seconds is it until they are found? Assume that their first sneeze in unison after they get into the boxes does not count because Samantha (who is "it") is still counting.

**A) 60 B) 90 C) 120 D) 240 E) NOTA**

1. Jamie L. decides to hide in this huge refrigerator box 4 feet long, 3 feet wide, and 6 feet tall. Jamie L. squishes down into a rectangular prism 1 foot by 2 feet by 4 feet on the floor of the box, but she wants to fill the rest of the box with throw pillows that are 1 foot cubes so it's not obvious she's hiding inside. How many throw pillows does she use?

**A) 60 B) 64 C) 68 D) 72 E) NOTA**

1. While dumping all of the throw pillows into the box, Jamie L. finds a bag with exactly 2014 mini M&Ms. (She had time to count while waiting to be found). She doesn’t want to eat them all by herself, so she decides to share them equally with 7 of her closest friends. How many mini M&Ms would be left over?

**A) 0 B) 1 C) 5 D) 6 E) NOTA**

1. After 5 rounds of hide and seek, Arya, a smart Oreo cookie, has figured out that the average time it takes for whoever was “it” to find her is 9 minutes. If her new average is 8 minutes after one more round, how many minutes did it take to find Arya during that round?

**A) 5 B) 6 C) 7 D) 8 E) NOTA**

1. Theo has been distracted while playing hide and seek. Instead of hiding, he is simply following behind Samantha, the person who is currently “it”. Samantha, while searching, will turn around every seven minutes to check behind her. If this round of hide and seek lasts 46 minutes, how many times must Theo run and hide to avoid getting caught?

**A) 5 B) 6 C) 7 D) 8 E) NOTA**

1. If Karen is eating chips while playing hide and seek, there is a probability that she will be discovered. If she drinks a soda, there is a probability that she will be discovered. If she eats marshmallows there is a probability that she will be discovered. Which individual snack has the greatest possibility of her being discovered?

**A) chips B) marshmallows C) soda**

**D) can not be determined E) NOTA**

1. If Chamara has played 16 rounds of hide and seek, Jason has played 2 more than the number of rounds Chamara played. How many rounds of hide and seek did they play altogether?

**A) 14 B) 16 C) 28 D) 30 E) NOTA**

1. It is finally the end of the game. There were two tied winners who were experts at hiding. They tied for first place. One is known for always wearing a blue jacket, while the other is known for being a great president! Who were the two winners?

**A) Chamara and Nilay B) Tiffany and Farrah C) Brian and Doreen D) Jamie G. and Jessie E) NOTA**

