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

1. Help! Cinderella needs a dress for the ball, but her evil step-sisters ruined all of them! In order for her fairy godmother to help, she needs to simplify this expression:

7 x 9 + 18 x 2 + 12

**(A) 111     (B) 173 (C) 250 (D 251     (E) NOTA**

2. On their journey to the 2018 Chiles Mini Mu Competition, Snow White and the seven dwarves come across a strange pond. The pond is a perfect square with a side length of 5 feet. What is the area of the pond?

**(A) 5 ft²    (B) 20 ft²       (C) 25 ft²      (D) 35 ft² (E) NOTA**

3. Snow White and the seven dwarves then decide to travel the perimeter of the pond (the same one in question 2). How far did they travel (in feet)?

**(A) 5 ft. (B) 10 ft.       (C) 20 ft. (D) 25 ft. (E) NOTA**

4. In a strange turn of events, Meghana meets Mary Poppins. At this meeting, Mary Poppins asks her to calculate the area of the rim of her hat and tells her that the radius is 3 inches. Assuming the hat is a perfect circle, what should Meghana answer? (Hint: area of a circle = **π**r**²)**

**(A) 6π      (B) 9π        (C) 81π     (D) 100π (E) NOTA**

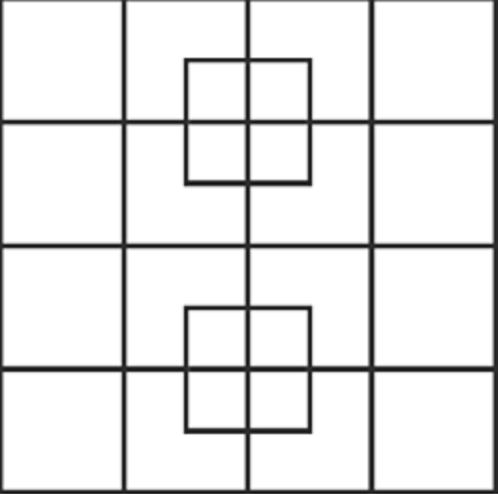
5. In order to escape the Shere Khan, Mowgli, and Baloo have to figure out what the 20th number is in the pattern  “ 2, 4, 6, 8, 2 , 4 , 6, 8, …” What is their number?

**(A) 2     (B) 4     (C) 6   (D) 8   (E) NOTA**

Use the following information to solve question 6-8.

Oh no! Neha has been caught by the Beast! To gain her freedom, Neha must crack a passcode that is 3 numbers long.

6.  The first digit is how many squares are in this picture. What is the first number?



**(A) 36          (B) 37        (C) 39      (D) 40 (E) NOTA**

7. The second number is the result of simplifying this expression:

10 x (30 + 72 x 0) + 14 - (0 x 712 + 300 + 5)

What is the second number?

**(A) 0          (B) 9    (C) 14      (D) 314        (E) NOTA**

8. The third number is the next number in the sequence: 4, 5, 7, 10, 14, 19, \_\_\_?

What is last number to the passcode?

**(A) 20   (B) 23    (C) 24    (D) 25    (E) NOTA**

9. Ariel lives in the Atlantic Ocean, which is 41,105,000 square feet. What is 41,105,000 is scientific notation?

**(A)  4.1105 x 108   (B) 4.1105 x 107    (C) 41.105 x 106**

**(D) 4110.5 x 104    (E) NOTA**

10. Since Elsa doesn’t want to build a snowman with Anna, Anna decides that she will do some math. She wants to find the sum of all integers from 1 to 100 inclusive. What should be Anna’s answer?

**(A) 5050  (B) 5051     (C) 10100                (D) 10101           (E) NOTA**

11. Aurora wants to know how many hours she was asleep for. Prince Phillip gives her a hint and tells her that the number of hours she slept for was the greatest common factor between 85 and 102. How many hours did Aurora sleep?

**(A) 7     (B) 13               (C) 17            (D) 8670   (E) NOTA**

12. To defeat the huns, Mulan must get out of a hole that Shan Yu threw her in. Each hour, she climbs up 4 feet, but then slides back down 2 feet. If the hole is 33 feet deep, how long does it take her to climb out of the hole?

**(A) 17 hours         (B) 16 hours (C) 15 hours        (D) 14 hours (E) NOTA**

13. Moana and Maui have been sailing for a long time. Maui wants to know how far they’ll go. So, Moana tells him that they have 3 hours left. Knowing that their boat is going 10 meters per second and that they’ve already been sailing for 2 hours, how many meters are left in their trip?

**(A) 30 (B) 10,800        (C) 36,000     (D) 108,000    (E) NOTA**

14. Peter Pan and Tinkerbell are having a race to see who can fly faster. Tinkerbell is confident that she will beat Peter Pan and allows him a head start of 5 feet. The finish line is 60 feet away. If Tinkerbell flies at a rate of 15 feet per second, and Peter Pan flies at a rate of 11 feet per second, who will win and by how much?

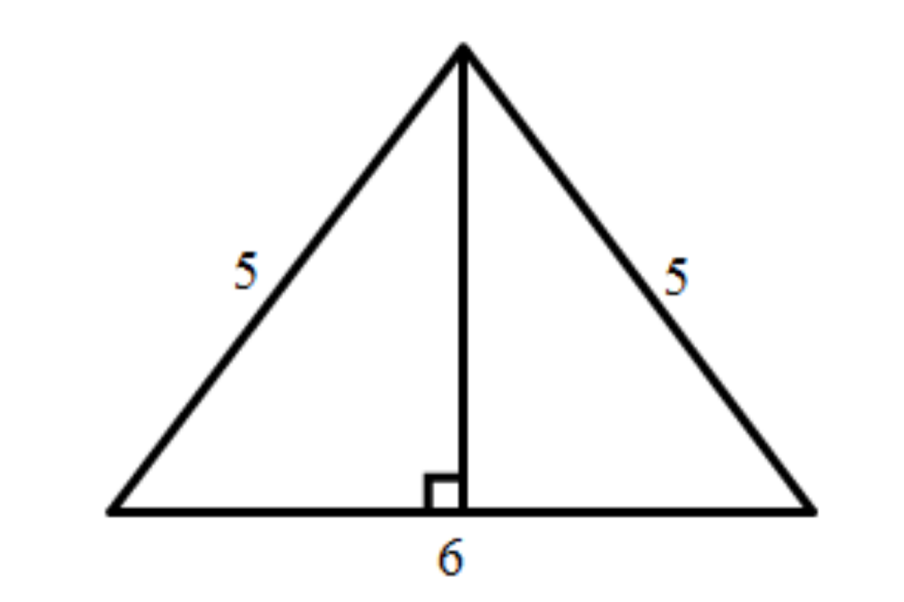
**(A) Peter Pan by 1 second      (B) Peter Pan by 2 seconds**

**(C) Tinkerbell by 1 second      (D) Tinkerbell by 2 seconds       (E) NOTA**

15. Flynn Ryder wants to measure how long Rapunzel’s hair is. However, he doesn’t have a ruler. He does have a stick whose length is equal to  the length of a foot-long ruler. He uses the stick to measure her hair and gets that it would take 48 sticks to match the length of her hair. How long is Rapunzel’s hair?

**(A) 32 ft        (B) 60 ft        (C) 72 ft       (D) 80 ft     (E) NOTA**

16. As Moana is sailing away, she looks closer at the sail and realizes it’s in the shape of a triangle. The sail is an isosceles triangle with two sides of length 5 and the base of length 6, what’s the area of her sail?



**(A)  6 ft2               (B) 12 ft2 (C) 15 ft2 (D)  30 ft2  (E) NOTA**

17.  While Ariel and Flounder are exploring an abandoned shipwreck, they find a dinglehopper before a shark decides to chase them! To avoid getting eaten by the shark, Ariel swims at a speed of 12 miles an hour for half a mile before stopping to help Flounder, which takes about 30 seconds. She then swims for another quarter mile at her previous speed before she’s safe. How long did it take her to get away from the shark with flounder?

**(A)  3 minutes and 45 seconds      (B) 4 minutes and 15 seconds**

**(C) 4 minutes       (D) 4 minutes and 5 seconds (E) NOTA**

18. After Aladdin stole some food from the market he splits it evenly with Abu. They have a total of 34 pieces of food, which consists of apples, bread, cheese blocks, and bananas. If the number of apples is twice the number of bread loaves, the number of bananas is one less than the number of bread loaves, and there are three cheese blocks, how many apples does Abu get? The cheese blocks can be cut in half if necessary.

**(A) 16        (B) 8           (C) 20   (D) 10          (E) NOTA**

19.  After Snow White is saved by Prince Ferdinand, they (along with the seven dwarfs) decide to celebrate! They buy a vanilla cake in the shape of a rectangular prism and decide that everyone should get one piece. If the cake has a length of 20 inches, a width is equal to the number of individuals eating the cake (in inches), and a height that is three fifths of the length, what is the volume of Snow White’s piece of cake, also in the shape of a rectangular prism?

**(A)  2160 in3    (B)  1680 in3    (C)  396 in3 (D)  240 in3**

**(E) NOTA**

20. After Mufasa dies, Simba runs away. He finds Timon and Pumbaa in an oasis in the middle of the desert. After introducing themselves, they eat a lot of bugs.  If the number of bugs Simba ate is equal to the product of the smallest and largest prime numbers less than 100 whose digits each add up to 7, how many bugs did he eat?

**(A) 7   (B)  68    (C) 72    (D) 427 (E)NOTA**

21. At one point Pocahontas asks John Smith if he can paint with all the colors of the wind. This makes John wonder how many colors there are in the wind. Pocahontas tells him that the number of colors in the wind is equal to the following equation:

[(99 + 23) x 2 + (33 – 6 ÷ 2)2 + (81 x 3) + 77 x 3 - 5]0 +75,554

How many colors are there in the wind?

**(A) 75,554    (B) 75,555          (C) 75,556**

**(D) 75,557               (E) NOTA**

22. When Cinderella is getting ready for the ball, her stepsisters Drizella and Anastasia break the pearl necklace she was wearing. When the necklace breaks the pearls land on different steps in a mathematical pattern. If the first step has one pearl, the second step has 3, the third step has 7, and the fourth step has 15, how many pearls were on her necklace originally, if the last step is step 7?

**(A) 254             (B) 247 (C) 127        (D) 120   (E) NOTA**

23. After Cinderella’s Fairy Godmother comes and gives her a magical carriage, Cinderella becomes curious. She notices that the length of the radius on the wheel is equal to one tenth of 120 feet. What is the circumference of Cinderella’s wheel?

**(A) 6π      (B) 12π  (C) 24π (D) 144π          (E) NOTA**

24. While she is at the ball, Cinderella realizes that she is hungry. At the buffet table, she sees 5 different meats, 6 different vegetables, 4 different desserts, and 3 different drinks. How many unique meals can Cinderella make consisting of one meat, one vegetable, one dessert, and one drink?

**(A) 18       (B) 42 (C) 123   (D) 360    (E) NOTA**

25. While Belle is in the Beast’s castle, she spends a lot of time in the library. If the number of books she read in the library is equal to the first 4 even natural numbers multiplied by each other plus the first 4 odd natural numbers multiplied by each other, how many books did she read?

1. **105       (B) 279 (C) 384 (D) 489 (E)NOTA**

26. Tiana is making some beignets for her friends, Princess Cinderella and Princess Moana. Her recipe calls for ¼ of a cup of sugar and two large eggs to make one full batch of beignets. If she has 16 and a half cups of sugar and 23 large eggs, how many batches can she make?

1. **66.5      (B) 12 (C) 11.5 (D) 23   (E) NOTA**

27. Aladdin asks Genie to solve the following question as one of his 3 wishes:

If one magical carpet is equal to 200 loaves of bread, and 50 loaves of bread are equal to 12 pies, how many pies are two magical carpets worth?

**(A) 4   (B) 12      (C) 48 (D) 50   (E) NOTA**

28. Princess Aurora finally woke up from her nap! When she wakes up, she sees a math problem on the wall. The problem asks her what the value of *c* is if ** and a is 3 and b is 4. What is the value of *c?*

**(A)  5 (B)  7 (C)  14    (D)  25   (E) NOTA**

29. After Arthur is crowned as the king, he decides to buy a new vacation castle. If his budget is $3,141,592.65 an the castle he buys is $2,005,001.25, how much money does he have left over?

**(A) $120,000     (B)$1,136,591.40        (C) $1,237,890**

**(D) $1,136,591     (E) NOTA**

30. According to IMDb, when was the movie Snow White first released? Hint : the year is divisible by 13.

**(A) 2017 (B) 1940  (C) 1937    (D) 1918           (E) NOTA**