1. The infamous Three Blind Mice are at it again. They are trying to steal Farmer Brian’s grain, which is located at the origin. The mice are located at (3, 4). If they scurry in a straight line from their location to the grain, what is the slope of that line?
2. ** B.  C.  D.  E. NOTA**
3. Farmer Brian and his wife, Cayle, are in shock that they were outsmarted by three blind mice again. They are ready to call in the big guns for hire--Dr. Sampath! There is only one problem: Dr. Sampath’s price is an answer to a math problem (:O). Can you help out poor Farmer Brian and Lady Cayle by solving this equation?

4(2*x* + 5) + 9*x* = 9(2*x* + 7) – (*x* + 20)

**A. -33 B. 0 C. no solutions D) all Reals E. NOTA**

1. Now that you’ve helped Farmer Brian and Lady Cayle hire Dr. Sampath, it’s time to help Dr. Sampath. Dr. Sampath is having trouble finding his MouseTrapper3000. His trap is in the shape of a parabola that opens downward. Can you identify which equation describes the shape of his MouseTrapper3000?

**A. y = -2x + 7**

**B. y = 2x + 7**

**C. y = -2x2 + 7**

**D. y = 2x2 + 7**

**E. NOTA**

1. Well you’re not done yet. In fact, you’re not even close. Dr. Sampath’s sister, Miss Ray, is a math teacher here at Chiles. Three of her students, Fiddler, Fifer, and Practical, are trying to solve this problem she gave them.

 (assuming *x* is an integer)

Fiddler thinks that *x* has to be 0

Fifer thinks that *x* is -3

Practical thinks that *x* is 5

Miss Ray thinks that x is -5.

Who is right?

**A. Fiddle B. Fifer C. Practical D. Miss Ray E. NOTA**

1. Fiddler, Fifer, and Practical are pigs, however, and have more important things to worry about than silly math. They have a habit of slinging mud at each other every time the hour and minute hands of their analog clock overlap. How many times do they sling mud at each other in one day? (One day goes from 12:00 a.m. to 11:59:59 p.m.)

**A. 21 B. 22 C. 23 D. 24 E. NOTA**

1. Goldilocks and her three bear buddies have to have things *just right*. Similar to their pig pals, they like to eat porridge every time the hour, minute, and second hands of their (working) clock overlap. How many times do Goldilocks and her three bear buddies eat porridge in one day? (One day goes from 12:00 a.m. to 11:59:59 p.m.)

**A. 1 B. 2 C. 11 D. 12 E. NOTA**

1. But...When all seven characters (3 bears, Goldilocks, 3 pigs) gather in one area, they enjoy telling stories about their adventures at Chiles with all their friends and teachers. Goldilocks was tired, so she just listened. The bears and pigs told a total of 50 stories with the bears telling ten more stories than the pigs. How many stories did the bears tell?

**A. 10 B. 20 C. 30 D. 50 E. NOTA**

1. The Big Bad (but beautiful) Wolf, who sometimes likes to be called Katherine, is looking for her nemesis, TJ. She knows that those three little pigs like to hide him in their houses, but the three little pigs live in a gated community. The community requires a password for entry. In this case, the password is the simplified form of the following expression:

, x > 0

Can you figure out the password for Katherine the Wolf?

**A. x7 B.  C.  D.  E. NOTA**

1. Help the poor little piggies defend themselves from the Big Bad Wolf. Since they have limited time, the piggies have come up with an equation to help predict the Wolf’s movement. The Three Little Pigs know the Big Bad Wolf is 4 kilometers from their houses and they need 5 hours to prepare their defenses. What is the maximum speed in meters per hour the wolf can travel and still allow the pigs to prepare their defenses?

**A. 4000 B. 800 C. 4 D. 0.8 E. NOTA**

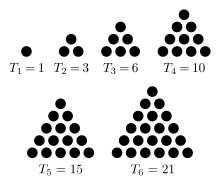
1. Katherine the Wolf is very fast. Her weapon of choice is very strange, though. She is huffing and puffing towards the pig’s meek houses. However, for the huffing and puffing to work, a sequence of numbers must be spoken prior to the toss. The first four numbers are as follows: 1, 1, 2, 3, 5....

What is the sum of the sequence if the sequence is seven numbers long?

**A. 20 B. 33 C. 49 D. 54 E. NOTA**

1. You’ve gone and done it again...stop helping the bad guys! These piggies are desperate! Luckily, there is a back exit only the pigs know of, but it also has a password. The password is this equation written in Standard Form : 

**A.  B.  C. -3x + 4y = -20 D. 3x – 4y = 20 E. NOTA**

1. Run! The piggies are all running for their lives, and they eventually

come to a lake. To cross, they must fit on a triangular shaped boat

whose number of seats are triangular numbers. The first row has one seat, the.

second row has two seats, the third row has three seats, and so one. The boat

has seven rows. How many total seats does the boat have?

**A. 28 B. 21 C. 7 D. 6 E. NOTA**

1. As the pigs are crossing the lake in the boat, they realize that there are a lot of fish jumping in the water. But they can’t quite identify the number. They know that , where x is number of fish. What is the largest possible number of fish?

**A. 1 B. 2 C. 3 D. 4 E. NOTA**

1. On the other side of the lake, a massive meeting takes place. The three pigs, the three bears (and Goldilocks), and the three blind mice were watching (or listening, in the mice’s case) Kathy the Wolf tear through the kingdom. They could barely make out Farmer Brian and Cayle running towards them, carving knives in hand, and Dr. Sampath following suit. To begin their meeting on how to save their world, the participants had to answer the following problem to prove their worth: How many solutions does  have?

**A. 1 B. 2 C. 6 D. 8 E. NOTA**

1. Their meeting was organized weirdly, however. Their tactical leader, the almighty and omnipotent master of cunning, deceit, and warfare, Nilay, stood before them. The attendees sat in the shape of a parabola. Which of the following equations could represent the shape they sat in?

**A. x2 + y2 = 1 B. y = x2 + 1 C. y = 1 D. x = 1 E. NOTA**

1. The Three Blind Mice had other business to deal with though. They decided to take a one night break and go on a mini vacation with one of their five friends...but they couldn’t see who they originally chose! What is the probability that each of the Three Blind Mice will choose the same mouse friend?
2. ** B.  C.  D.  E. NOTA**
3. Nilay had some tactical work to do. He’s pretty lazy, though (trust me, I know him very well…). To take down Kathy the Wolf, it would take 50 units of force. Since pigs are fat, he assigned this job to them. Each pig thrown at the wolf adds an additional (2*n-*1)units of force, where *n* is the number of pigs thrown on the wolf (including the one being thrown). How many pigs would it take to bring down Kathy the Wolf?

**A. 3 B. 4 C. 8 D. 15 E. NOTA**

1. Pigs aren’t free. The price to throw a pig varies according to this cubic:where *x* is the integer number of pigs already thrown. How much would it cost to throw 3 pigs throwing one at a time?

**A. 3 B. 7 C. 9 D. 15 E. NOTA**

1. Nilay, being the organizational freak that he is (sarcasm), organized each creature their worth. He then multiplied these values. If Nilay multiplied , what is his product in simplest form?

**A.  B.  C.  D.  E. NOTA**

1. Goldilocks was sent on a mission starting from their current camp, getting water from the lake, and moving to their new camp. If their current camp is at the origin, the lake is located along, and their new camp is at (6, 8), what is the shortest distance she will have to travel in order to complete her mission?

**A.  B. 10 C.  D. 100 E. NOTA**

1. After that exhausting mission, it’s time for Goldilocks to play some cards. Of course, she is playing with bears, so her games have to be simple. In this one, whoever draws the highest card, wins the game with ace being the lowest and king being the highest. That is, the first player draws out a card, returns the card to the deck, and the second player draws a card. What is the probability that Goldilocks ties Baby Bear?

**A.  B.  C.  D.  E. NOTA**

For Questions 22-24, 

1. The Bears want to know what is the value of , ?

**A. 0.25 B. 0.5 C. 2 D. 6 E. NOTA**

1. The three blind mice certainly have their differences. Find h(3) – g(3).

**A.**  **B.**  **C.**  **D.**  **E. NOTA**

1. What is the degree of the numerator of the pigs’ favorite function  ?

**A. 4 B. 8 C. -4 D. -8 E. NOTA**

1. Nilay needs to choose his commanding officers. Surprisingly enough, he needs to choose 3 of them--one bear, one mouse, and one pig. He chooses the bear who is on a line whose equation is 3x + 5y = 8. Nilay is on a line perpendicular to the bear’s line. What is the slope of Nilay’s line?

**A.  B.  C.  D.  E. NOTA**

1. Nilay told the bear he could be commanding officer if he could name the property illustrated by

9 + 0 = 9. How should the bear reply if he wanted to be the commanding officer?

**A. additive identity B. additive inverse C. commutative D. distributative E. NOTA**

1. Using all of their tactics and fancy pig throwing, the final confrontation had come. One final question to banish them for good. In order for them never to be allowed back onto this land again, the enemies needed to hear a specific number. Only Old Jamie the Wise knew the number, but he only spoke in code. “The number you seek” he said, “is the sum of the first three natural numbers, their squares, their cubes, and their quartics (fourth power).” Help your friends one last time, and figure out the magic number that needs to be spoken.

**A. 30 B. 34 C. 60 D. 154 E. NOTA**

1. Now normally, I would let you go with just that. But that’s kind of boring, so I’ll give you a problem that stumped even Jamie the Wise when he was in his youth. His grandfather was a farmer who had many different types of crops that he would grow in his field. One particular day, he had 100 crops growing, numbered 1-100. However, any crop that was in a prime-numbered row (assuming they were all in a line) was instantly smited by the Ghost of Leonhard Euler, who hated prime numbers. How many rows of crops were smited?

**A. 23 B. 24 C. 25 D. 26 E. NOTA**

1. To celebrate their victory in battle, everyone decided to have an ice cream party. Fun, right? If Old Man Jamie eats one seventh of the ice cream at the party and Nilay and Katherine share five fourteenths of the ice cream, how much of the ice cream do each of the remaining cast members eat if they split it evenly? The remaining cast members include the three blind mice, three bears, goldilocks, and three pigs.

**A. one tenth B. one fourteenth C. one twentieth**

**D. one fiftieth E. NOTA**

1. You’ve done a great job helping everyone in their times of need. I’m sorry to say that you’ve actually done such a good job that they will never need your help again. So from the three blind mice, Goldilocks and the Three Bears, the three little pigs (along with the several other pigs in their kingdom), and your humble messenger : Farewell. The answer for this question is E because E is a backwards 3.

**A. Don’t you dare choose this choice.**

**B. Not this one either.**

**C. Not a chance.**

**D. I will find you and force you to change your answer if you choose this.**

**E. NOTA**