**Directions: You have 60 minutes to complete the following 30 multiple-choice questions. Choices A through D are answer choices for every problem. Choice E) ATON means “none of these answers is correct”. Note: If a problem tells you to pick a certain answer choice, then do so. If a problem is taking you an abnormally long time to solve, you may want to skip it. Good luck!**

1) What is the sum of the first 25 cubes?

**A) 105623 B) 105624 C) 105625 D) 105626 E) ATON**

2) Which of the answer choices to this question has a value that is different from the rest?

**A) 0.5 B)  C)  D)  E) ATON**

*For questions 2-3, use the points P (-1, 3) and Q (2, 7).*

3) Find the slope of line PQ.

**A)  B)  C)  D)  E) ATON**

4) Find the distance between points *P* and *Q*.

**A) 3 B) 4 C) 5 D) 25 E) ATON**

5) For this problem **only**, **do NOT use the order of operations!** Evaluate the expression from left to right.



**A) 433 B) 361 C) 0 D) Undefined E) ATON**

6) Now, evaluate the following expression **using the order of operations as you would normally.**



**A) 433 B) 361 C) 1 D) 0 E) ATON**

7) Nith has a pet circle named Pablo. He spends time with it every day and loves it very much. They are best friends. One day, Nith asked Pablo about its radius. If Pablo said that its radius is 4, then what is its circumference?

**A)  B)  C)  D)  E) ATON**

8) Nilay is 56 inches tall. One day, he gives Jamie, who is 72 inches tall, a piggyback ride. When Jamie is on Nilay’s back, their combined height is the arithmetic average of their individual heights. Find the arithmetic average of their heights, in inches.

**A) 128 B) 68 C) 64 D) 16 E) ATON**

9) If the determinant of a  matrix in the form  is given by, then what is the determinant of the matrix 

**A) 5 B) 2 C) -2 D) -5 E) ATON**

10) If  then what is the value of ?

**A) 30 B) 18 C) 8 D) 2 E) ATON**

11) April Fools’ Day (which is always on the first day of April) is on a Tuesday in 2014. What day of the week will April Fools’ Day be on in 2015?

**A) There will be no April Fools’ Day in 2015 B) Wednesday  
C) There will be two April Fools’ Days in 2015 D) Thursday   
E) ATON**

12) Find the product of the roots of .

**A) 12 B) 5 C)  D) -6 E) ATON**

13) Which of the following expressions has the greatest degree?  
I.    
 II.    
 III. 

**A) I B) II C) III D) They all have equal degree E) ATON**

14) Michael and Sampath are taking an April Fools test. If Michael can complete the test in five hours and Sampath can complete the test in three hours, then how long (in hours) will it take them to complete the test if they work together?

**A)  B)  C) 2 D)  E) ATON**

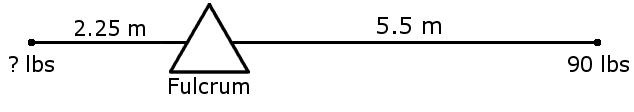
15) Nathan, Nick D, and Daniel are eating a pie. If Nathan eats  of the pie and then Nick eats  of the remaining pie, how much pie is there left for Daniel to eat?

**A)  B)  C)  D) None E) ATON**

16) Brian took a test earlier today and determined that his score was 150. However, Brian is foolish and accidentally used the wrong scale! He graded his test using the following scale: 6 points for each correct answer, 1.5 points for each blank answer, and 0 points for an incorrect answer. If Brian answered all 30 questions on the test, then what is his real score on the Chiles Mini Mu scale? (5 points per correct answer, 1 point for each skipped question, 0 points for an incorrect answer.)

**A) 150 B) 140 C) 130 D) 125 E) 0**

17) To balance a seesaw, the product of the weight on one side and the distance from that weight to the fulcrum (the balance point) must be equal to the product of the weight on the other side and distance from that weight to the fulcrum. If Jessie weighs 90 lbs. and is 5.5 meters from the fulcrum, how much does Wyatt weigh if he is 2.25 meters from the fulcrum if Jessie and Wyatt balance each other?



**A) 45 B) 90 C) 100 D) 180 E) ATON**

18) Find the equation of the line in Standard Form that passes through the points and.

**A) 3x + y = -3 B) 3x + y = 3 C) 3x – y = -3 D) 3x – y = 3 E) ATON**

19) Find the 10th term of the following sequence: 1, 1, 2, 3, 5, 8,…

**A) 21 B) 34 C) 55 D) 89 E) ATON**

20) Find the sum of the x and y-intercepts of .

**A) 112 B) 45 C) 30 D) 15 E) ATON**

21) From this list of people, who do you think is responsible for writing this test? Hint : Not E.  
I. Freed  
 II. Brian  
 III. Nick  
 IV. Nith  
 V. Nobody

**A) I and V B) II and V  
C) II, III, and IV D) II, III, IV, and V E) ATON**

22) Andrew has a favorite number. If this number is the smallest positive integer divisible by 3, 7, and 8, then what is Andrew’s favorite number?

**A) 84 B) 88 C) 168 D) 336 E) ATON**

23) Which property states that a + (b + c) = a + (c + b)?

**A) Commutative B) Associative  
C) Distributive D) Substitution E) ATON**

24) Find the number of ways you can arrange the letters in the word APRIL.

**A) 200 B) 120 C) 100 D) 60 E) ATON**

25) There are cows, chickens, and dogs on a farm. To celebrate April Fools’ Day, all of the animals decide to wear an extra fake leg to surprise farmer Goodwin. Including the fake legs, the animals on the farm have a total of 225 legs. If there are ten cows and twenty dogs, how many chickens are there?

**A) 35 B) 25 C) 20 D) 15 E) ATON**

26) Even though Nick Yo is in high school, he only knows how to work with positive integers. Help him learn about negative integers by finding the sum of the negative integer solutions to the inequality .

**A) -28 B) -21 C) -15 D) 0 E) ATON**

27) Evaluate.

**A) 705 B) 706 C) 707 D) 708 E) ATON**

28) Dorren, Shiming, and Colleen are going to buy bags of chips for an April Fools’ party. The following table shows the size of each bag of chips bought and its respective price and buyer.

|  |  |  |
| --- | --- | --- |
| **Person** | **Size (in grams)** | **Price** |
| Dorren | 369 | $3.00 |
| Shiming | 484 | $4.00 |
| Colleen | 625 | $5.00 |

Who got the best deal in terms of grams per dollar?

**A) Dorren B) Shiming C) Colleen D) No one E) ATON**

29) The answer to this question is answer choice A.

**A) April Fools! B) Choose me!  
C) The answer is actually C D) D stands for “definitely the best answer”  
E) ATON**

30) When you attend the Lawton Chiles High School Mini Mu event, you better be ready to do some math. The tests involve a heavy load of computation and problem solving. In a couple of years, you will be learning higher level math, including pre-calculus and even calculus. Sometimes you will come across problems that can be easily solved. However, on this test, there are some extremely difficult problems. April Fools! We hope you have been having a great time taking this April Fools’ test. Just in case you didn't know, April Fools’ Day is celebrated on the first day of April. In 2014, April Fools’ Day will be on a Tuesday. By the way, if you couldn't figure out the answer to problem number 1, the answer is C. Seriously. We don’t actually expect you to solve it by hand. Now, for the problem: if National Honesty Day is on April 30th, what day of the week is National Honesty Day in 2014? April Fools! This is not really your question. However, if you want to know the answer to it, the answer is Wednesday. There are several ways to solve this problem. One way is to add multiples of 7 starting from April 1 (which, as we said, is a Tuesday) until you get to April 29. Then add one more day to get to April 30. Another way to calculate this answer is to use what is called the Doomsday Algorithm. If you want to learn more about this method, I suggest searching about it on the internet or asking Brian Ahn, the Chiles Mu Alpha Theta Treasurer, about it. Once again, remember that this question is not the problem you are supposed to solve. The real problem is: What is the slope of the line perpendicular to ?

**A)  B) 0 C) 7 D) Undefined E) ATON**