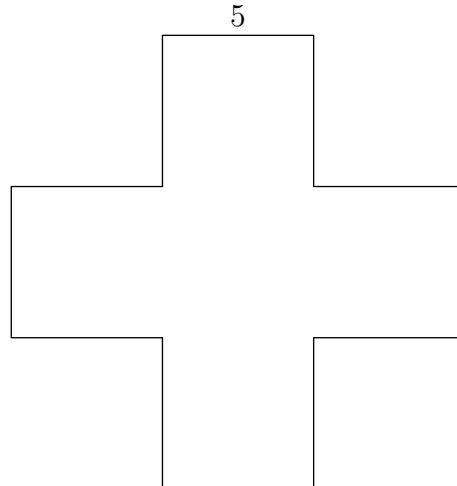


For all questions, answer choice (E) NOTA means that none of the given answers is correct. Figures are not necessarily drawn to scale. Good Luck!

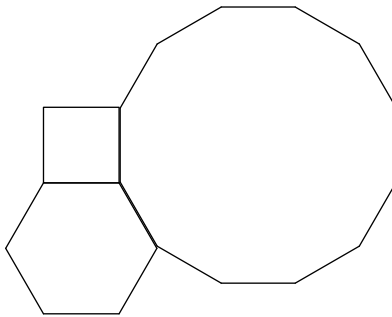
1.  $7 + 7 = ?$   
(A) 7                      (B) 10                      (C) 77                      (D) 14                      (E) NOTA
2. Mr. Fraser loves to play frisbee. He has a huge circular frisbee that has a radius of 4 feet. What is the area of his frisbee in square feet? (Hint: Use  $A = \pi r^2$ )  
(A)  $12\pi$                       (B)  $8\pi$                       (C)  $16\pi$                       (D)  $64\pi$                       (E) NOTA
3. What is one third of one fifth of 30?  
(A) 2                      (B) 6                      (C) 8                      (D) 10                      (E) NOTA
4. Simplify  $28 \times 20 \div 35$ .  
(A) 28                      (B) 16                      (C) 12                      (D) 18                      (E) NOTA
5. John decided to buy Abhi a present for his birthday. The Hot Wheels car he bought Abhi cost \$7.50, the gift wrap cost \$2.33, and the tape cost \$1.77. How much did he spend on Abhi altogether?  
(A) \$11.60                      (B) \$10.60                      (C) \$11.50                      (D) \$10.50                      (E) NOTA
6. Bessie thought it would be funny to prank Sumanth by eating Sumanth's cheeseburger. It takes Bessie 2 hours and 47 minutes to eat a cheeseburger. Sumanth leaves his sandwich to go use the restroom, he comes out at 5:40 PM and Bessie finishes the cheeseburger exactly at that time. When did Bessie begin eating the cheeseburger?  
(A) 2:30 PM                      (B) 2:43 PM                      (C) 2:53 PM                      (D) 2:57 PM                      (E) NOTA
7. One fine day, Siddarth, Abhi, Alex, Puneet, and Rohith wanted to eat cheesecake from the Cheesecake factory. There were three really delicious varieties available, Strawberry Cheesecake, Raspberry Delight, and Chocolate Lovers, all of the same size. Alex decided to get 1 Strawberry Cheesecake,  $\frac{1}{2}$  of a Raspberry Delight, and  $\frac{1}{3}$  of a Chocolate Lovers. How many cheesecakes did Alex get in all?  
(A)  $\frac{5}{3}$                       (B) 2                      (C)  $\frac{3}{2}$                       (D)  $\frac{11}{6}$                       (E) NOTA
8. If a triangle has two angles that are  $56^\circ$  and  $62^\circ$ , what type of triangle is it?  
(A) Right                      (B) Scalene                      (C) Obtuse                      (D) Isosceles                      (E) NOTA
9. If a rectangle has an area of  $150 \text{ in}^2$  and a perimeter of 70 in, what are the dimensions of the rectangle?  
(A) 30 in by 5 in                      (B) 50 in by 3 in                      (C) 17 in by 18 in                      (D) 20 in by 15 in                      (E) NOTA
10. The Rickards Invitational is obviously the best math competition of the year. It lands on the second Saturday of November every year. In the year 2010, October 13<sup>th</sup> was a Wednesday. What day of the month was the 2010 Rickards Invitational?  
(A) 10<sup>th</sup>                      (B) 11<sup>th</sup>                      (C) 12<sup>th</sup>                      (D) 13<sup>th</sup>                      (E) NOTA
11. Rohith loves trying on clothes. He has 3 dresses, 4 pairs of shoes, and 5 turbans. How many different outfits can he create if his outfit consists of a dress, a pair of shoes, and a turban?  
(A) 40                      (B) 20                      (C) 60                      (D) 12                      (E) NOTA

12. Siddarth likes writing tests for little children to enhance their math learning experience! He can't finish writing the test unless he finishes his homework, his homework has a hard question and he can't solve it. Can you help him? Solve:  $2 + 4 + 6 + \dots + 96 + 98 + 100$ .
- (A) 2550                      (B) 5050                      (C) 1275                      (D) 10000                      (E) NOTA
13. Aladdin is obviously the greatest Disney movie in the world. It came out in September, 1992. How many years old is Aladdin (rounded to the closest year)? (Hint: It's currently November, 2013)
- (A) 23                      (B) 22                      (C) 21                      (D) 24                      (E) NOTA
14. In Rickards Math Club, there are 3 doors to enter or exit practice. How many different ways can Ryan enter and exit the room?
- (A) 6                      (B) 4                      (C) 5                      (D) 7                      (E) NOTA
15. Teja has an obsession with Taylor Swift and he listens to her music all the time! While listening to her songs he studies for his chemistry exam. However, when listening to Taylor Swift he works at a pace that is one-third of the pace that he works when he is not listening to her music. Teja takes 3 hours while not listening to Taylor Swift. How long does he take when he works while listening to Taylor Swift?
- (A) 1                      (B)  $\frac{10}{3}$                       (C) 4                      (D) 9                      (E) NOTA
16. Two squares put side by side create a rectangle with length 4 and width 8. What is the area of one of the squares?
- (A) 24                      (B) 32                      (C) 28                      (D) 16                      (E) NOTA
17. What is the area of the figure below, if all of the sides have a length of 5?



- (A) 25                      (B) 60                      (C) 125                      (D) 225                      (E) NOTA

18. A regular dodecagon (12-sided polygon), a regular hexagon, and a square all with side length 4 centimeters are put together in such a way all 3 shapes share an edge with the other 2. What is the perimeter of this figure?



- (A) 88                      (B) 64                      (C) 40                      (D) 80                      (E) NOTA
19. I want you to pick a number. Any number. Then add 45. Then multiply by 2. Afterwards, add the number you picked 7 times. Finally divide your number by 9. How much greater is the number you obtained than the number you originally picked?
- (A) 45                      (B) 7                      (C) 9                      (D) 10                      (E) NOTA
20. Let  $a @ b = \frac{b}{a}$ . For example,  $5 @ 15 = \frac{15}{5} = 3$  What is  $7 @ 91$ ?
- (A) 13                      (B) 12                      (C) 10                      (D) 11                      (E) NOTA
21. What is  $\sqrt{6^2 + 8^2}$ ?
- (A) 10                      (B) 14                      (C) 100                      (D) 196                      (E) NOTA

**For questions 22-24, use the following information:** The Rickards Math Club decides to go to Magic Kingdom, Islands of Adventure, Universal Studios, Animal Kingdom, Epcot, and Sea World in Orlando.

22. The teacher doesn't let the kids have fun until they get a math question right. The given math question is to determine the value of  $111 \times 111$ . What is the answer?
- (A) 111111                      (B) 12321                      (C) 123456                      (D) 654321                      (E) NOTA
23. Of course, Islands of Adventure is the best theme park because of Harry Potter World. After Harry Potter world was finished being built, ticket prices increased by 50%. The original ticket price was 60 dollars. How much does each ticket now cost in dollars?
- (A) 120                      (B) 30                      (C) 60                      (D) 90                      (E) NOTA
24. At Animal Kingdom, Stephen found a monkey he really liked. He wanted to make the monkey his pet, sadly the monkey kept running away from Stephen at Animal Kingdom. Stephen is very fast and can chase the monkey by running 4 miles per hour. If he runs for 2 hours and 30 minutes, how many miles did he run for?
- (A) 10                      (B) 8.5                      (C) 4                      (D) 20                      (E) NOTA
25. In Mario Kart, there are 4 races in a cup and there are 8 cups in the competition. If Luigi won 75% of the races, how many races did he win?
- (A) 12                      (B) 8                      (C) 32                      (D) 24                      (E) NOTA

26. What is the remainder when 17353 is divided by 36?  
(A) 1 (B) 3 (C) 32 (D) 35 (E) NOTA
27. Jenny decides to go to the play, Beauty and the Beast, which costs  $\frac{135}{20}$  dollars. How many cents ( $\text{¢}$ ) are in  $\frac{135}{20}$  dollars?  
(A) 575 (B) 135 (C) 675 (D) 0.675 (E) NOTA
28. The teacher is handing out note cards to her students. She gave 3 note cards to the first student, 6 note cards to the second student, 12 note cards to the third student, and 24 note cards to the fourth student. If this pattern continues, how many note cards will the teacher give to the fifth student?  
(A) 36 (B) 48 (C) 45 (D) 27 (E) NOTA
29. What is the next term in the sequence: 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, ...  
(A) 70 (B) 55 (C) 89 (D) 59 (E) NOTA
30. When  $a$  is divided by  $b$ , the result is  $\frac{5}{6}$ . When  $a$  is divided by  $c$  the result is  $\frac{4}{20}$ . What is  $b$  divided by  $c$ ?  
(A)  $\frac{3}{10}$  (B)  $\frac{6}{25}$  (C)  $\frac{10}{3}$  (D)  $\frac{7}{20}$  (E) NOTA