

Select (E) NOTA if none of the above answers are correct. Good luck!

- Evaluate $(-3) - (-4) + (-5)$.
(A) -12 (B) -4 (C) -2 (D) 6 (E) NOTA
- Andrew, a huge FSU fan, wins the 2010 "Most Dedicated Fan" award and brings home \$100,000 in prize money. On the way home, 75% of his money is stolen. Assuming he had no money before he won the award, how much money does he have remaining?
(A) \$25 (B) \$75 (C) \$25,000 (D) \$75,000 (E) NOTA
- Hannah recently placed in the top 10 at the National *MAθ* Convention. While she did not win the competition, her place was a composite odd number. What place did she receive?
(A) 3rd (B) 5th (C) 7th (D) 9th (E) NOTA
- Let the functions \otimes and \triangleright be defined as $a \otimes b = a + b$ and $a \triangleright b = a - b$, respectively. Compute the value of $5 \otimes (12 \triangleright 7)$.
(A) -14 (B) 0 (C) 2 (D) 10 (E) NOTA
- Let the function g be defined as $g(x) = 3x - 7$. Compute the value of $g(3)$.
(A) 2 (B) 3 (C) 4 (D) 5 (E) NOTA
- Kay has decided to ride with Rickards on a bus to Dallas, Texas along with 3 of his friends. On the way, Kay and his friends break a window. If the window costs \$350 to repair, and they split the cost evenly, how much does Kay have to pay?
(A) \$87.50 (B) \$116.67 (C) \$150.00 (D) \$220.33 (E) NOTA
- Jessica's height is 4 feet 9 inches. What is her height expressed only in inches?
(A) 49 in. (B) 57 in. (C) 58 in. (D) 59 in. (E) NOTA
- Find the equation of the line, in slope-intercept form, which passes through the points $(5, 13)$ and $(2, 7)$.
(A) $2x - y = -3$ (B) $\frac{8}{5}x - y = -5$ (C) $y = \frac{8}{5}x + 5$ (D) $y = 2x - 21$ (E) NOTA
- Evaluate $0.\overline{6} + \frac{2}{3} + .60$, expressing your answer as an improper fraction in simplest terms.
(A) 2 (B) $\frac{9}{5}$ (C) $\frac{29}{15}$ (D) $\frac{765}{396}$ (E) NOTA
- What is the least common multiple of 6 and 16?
(A) 2 (B) 16 (C) 32 (D) 48 (E) NOTA
- Solve for x , where $\frac{5x}{2} - 6 = 3x$.
(A) -10 (B) -11 (C) -12 (D) -13 (E) NOTA
- The operator $!$ is called a *factorial*, and is defined as $x! = (x)(x-1)(x-2) \cdots (2)(1)$. For example, $3! = 3 \cdot 2 \cdot 1 = 6$. Compute the value of $(5!)(2!)$.
(A) 120 (B) 240 (C) 360 (D) 720 (E) NOTA

13. Let $R = 7$, $H = 3$ and $S = 4$. Compute the value of $\frac{(R \cdot H \cdot S)^2}{S \cdot 1 \cdot 3 \cdot 3 \cdot 7}$.
- (A) 28 (B) 29 (C) 30 (D) 31 (E) NOTA
- For Questions 14–16 use the following information:**
Patrick is a star soccer player on the Rickards team. He scored the following number of goals in the first 7 games of the season: Game 1: 3, Game 2: 7, Game 3: 0, Game 4: 0, Game 5: 5, Game 6: 6, Game 7: 1.
14. What is the mean number of goals scored? Round your answer to the nearest hundredth.
- (A) 3.14 (B) 4.40 (C) 5.23 (D) 5.24 (E) NOTA
15. For this set of data, let X equal the mode, Y equal the median, and Z equal the range. What is the value of $3X(17Y + 86Z)$?
- (A) 0 (B) 279 (C) 1785 (D) 9030 (E) NOTA
16. What is the number of goals scored in Game 7 subtracted from the number of goals scored in Game 2?
- (A) 3 (B) 4 (C) 5 (D) 6 (E) NOTA
17. If $2^x = 8$, compute the value of 3^x .
- (A) 1 (B) 3 (C) 9 (D) 27 (E) NOTA
18. If x is 5 more than a number and x is 5 less than 2 times that same number, what is the value of x ?
- (A) 12 (B) 13 (C) 14 (D) 15 (E) NOTA
19. Parth isn't very good at math. On his past three tests, he earned the grades 69, 63, and 62. Parth's mom says that he can't sit under the apple tree unless he has a test average of 71. What grade must Parth get on his next test if he wants to sit under the apple tree?
- (A) 88 (B) 89 (C) 90 (D) 91 (E) NOTA
20. What is the sum of the first 7 natural numbers? (Hint: Natural numbers are the counting numbers: 1, 2, 3, ...)
- (A) 21 (B) 28 (C) 29 (D) 30 (E) NOTA
21. Evaluate the expression $4(16 \div 4) + 3 - 5(4 - 3)^2$.
- (A) -1 (B) 0 (C) 14 (D) 196 (E) NOTA
22. Let $a = 2$ and $b = 55$. Determine the value of $b - a^2$.
- (A) 51 (B) 52 (C) 53 (D) 54 (E) NOTA
23. Express the expression $-(3x^2 + x + 1) - (2x^2 - 6x + 2)$ in the form $ax^2 + bx + c$, where a, b, c , are integers. Compute the value of $a + b + c$.
- (A) -13 (B) -11 (C) -7 (D) 3 (E) NOTA
24. Solve the inequality for x where $9 - (2x + 1) \leq 5x + 6$.
- (A) $x \geq \frac{2}{7}$ (B) $x \leq \frac{2}{7}$ (C) $x \leq -\frac{2}{7}$ (D) $x \geq -\frac{2}{7}$ (E) NOTA

25. Jayshree comes home one day to find her new car in the driveway. Her parents said that the car cost initially cost, \$23,000, but they received a 24% discount. What was the final price of the car, after the discount?
- (A) \$2760 (B) \$17480 (C) \$20240 (D) \$25760 (E) NOTA
26. Solve for x where $\frac{Hx}{RS} = H^2$ and where $RHS \neq 0$.
- (A) H^3RS (B) $\frac{H^3}{RS}$ (C) $\frac{RS}{H^3}$ (D) RHS (E) NOTA
27. Payal builds a model of the Pentagon for her social studies project. The length of each side of the pentagon is 5 inches. What is the perimeter, in inches, of the pentagon?
- (A) 15 (B) 20 (C) 25 (D) 30 (E) NOTA
28. Jason and Chris are racing from Rickards to Moe's, a distance of 4 miles. Chris travels at a constant speed of 100 mph, while Jason travels at a constant speed of 60 mph. How many seconds earlier does Chris arrive?
- (A) 1.6 (B) 90 (C) 96 (D) 102 (E) NOTA
29. The chance of Patrick aching a serve is 25%. If he serves 12 times, what is the expected number of serves he will NOT ace?
- (A) 0 (B) 3 (C) 6 (D) 9 (E) NOTA
30. Which of the following is a composite number?
- (A) 71 (B) 73 (C) 79 (D) 89 (E) NOTA