
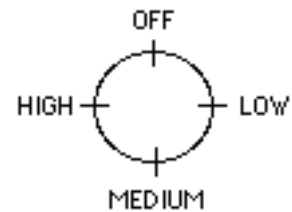








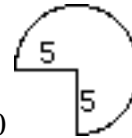
- _____ 1. $(2 + 3) \times 7 + 2 \times (5 + 1) - 3 \times 4$
 (A) 21 (B) 35 (C) 176 (D) 52 (E) 16
- _____ 2. The portion of the square on the right which is shaded black is 
 (A) 4% (B) 25% (C) 40% (D) 60% (E) 75%
- _____ 3. Sue is twice as old as her sister Kate. If Kate is 6, how old will Sue be in 3 years?
 (A) 9 (B) 15 (C) 6 (D) 12 (E) 3
- _____ 4. If there are 1450 seats in a theater and 775 of them are occupied. Express in simplest form what fractional part of the seats are not occupied.
 (A) $\frac{775}{1450}$ (B) $\frac{31}{58}$ (C) $\frac{675}{1450}$ (D) $\frac{58}{27}$ (E) $\frac{27}{58}$
- _____ 5. $\frac{2}{7} + \frac{3}{14} =$
 (A) $\frac{5}{21}$ (B) $\frac{5}{14}$ (C) $\frac{5}{7}$ (D) $\frac{1}{4}$ (E) $\frac{1}{2}$
- _____ 6. $0.25 + 0.373 + 0.75 + 1.234 - 0.373 =$
 (A) 1.334 (B) 2.234 (C) 2.244 (D) 2.607 (E) 2.980
- _____ 7. If you have three pairs of pants and two shirts that all will coordinate together, how many different outfits can you make?
 (A) 5 (B) 6 (C) 3 (D) 2 (E) 7
- _____ 8. Which expression below is not positive when $x = -2$ and $y = 5$?
 i. x^4 ii. $x + 2$ iii. $y - x$ iv. $\frac{x}{y}$
 A. i only B. ii only C. iii only D. iv E. ii and iv
- _____ 9. John has 12 albums, 36 CD's and 60 cassette tapes. He would like to share these items with 3 of his friends. If John's share is equal to that of his friends, how many items will each person receive?
 A. 27 B. 36 C. 54 D. 108 E. None of the preceding

- _____ 10. The dial on the range of a stove has four settings as indicated in the diagram below. If the dial is set at the Off setting and is turned clockwise through 53 settings, on what setting will the dial come to rest?
 (A). Off (B) Low (C) Medium (D) High (E) Not enough information



- _____ 11. The charge for long distance calls to Europe is \$2.45 for the first minute and \$.92 for each additional minute. What will the charges be for a one and one-half hour call?
 A. \$85.25 B. \$84.33 C. \$86.17 D. \$81.88 E. \$303.30
- _____ 12. Bob gained weight each week over a six-week period. His gains were recorded as 1.5 lbs, 12 oz, 1.4 lbs, 8 oz, 1.3 lbs and 4 oz lbs. What is Bob's average weekly gain in pounds?
 A. 0.95 lbs B. 3.36 lbs C. 5.7 lbs D. 28.2 lbs E. 4.7 lbs
- _____ 13. A company is interested in installing a security system in its factory in order to receive a deduction on its insurance premium. The cost of installing the security system is \$3000. Yearly savings on insurance is \$45. How many years will it take for the company to recoup the cost of installing the system?
 A. 66 years B. 67 years C. 68 years D. 69 years E. 70 years
- _____ 14. Two interior angles of a triangle have the same measure. The measure of the third angle is four times that of one of the smaller angles. What is the measure of the larger angle?
 A. 100° B. 110° C. 120° D. 130° E. 144°
- _____ 15. Suppose the square shown is rotated 90° counter-clockwise and then through a vertical line. Its resulting position would be 
 (A)  (B)  (C)  (D)  (E) 
- _____ 16. Which of the following products is divisible by 21?
 (A) 49×16 (B) 9×15 (C) 13×14 (D) 35×12 (E) 211×27
- _____ 17. 7 kilograms + 27 grams + 71 milligrams equals how many grams?
 (A) 103 (B) 727.71 (C) 7027.71 (D) 7027.071 (E) 7.98

_____ 18. The perimeter of the figure drawn below is approximately



- (A) 23.56 (B) 28.56 (C) 33.56 (D) 43.56 (E) 58.90

_____ 19. A square of side length 2 inches is removed from each corner of an $8\frac{1}{2}$ in. by 11 in. sheet of paper. The sides of the paper are then folded up to form an open topped rectangular box. Find the length, width, and height of the rectangular box. If these measures are added, the sum is

- A. $12\frac{1}{2}$ in. B. $13\frac{1}{2}$ in. C. $14\frac{1}{2}$ in. D. $17\frac{1}{2}$ in. E. $21\frac{1}{2}$ in.

_____ 20. If a fair coin, with two sides, one heads, the other tails, is flipped three times, what is the probability of the outcome being two heads and one tail? (Not necessarily in that order)

- (A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{1}{4}$ (D) $\frac{3}{8}$ (E) $\frac{1}{8}$

_____ 21. The number $\sqrt{4 + \sqrt{3 + \sqrt{2 + \sqrt{1}}}}$, rounded to the nearest thousandth is

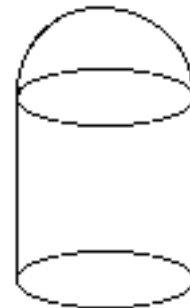
- (A) 5.407 (B) 1.156 (C) 2.485 (D) 6.146 (E) 3.058

_____ 22. The sum of the measures of the interior angles in an n-gon is

- (A) $180n$ (B) $90n$ (C) $180(n-1)$ (D) $90(n-1)$ (E) $180(n-2)$

_____ 23. If a silo has a diameter of 30 feet and is 75 feet tall, how tall is the cylinder, and the hemisphere respectively?

- (A) 45, 30 ft (B) 65, 10 ft (C) 50, 25 ft (D) 60, 15 ft (E) 30, 45 ft



_____ 24. One brand of TV has a 26-inch screen (which means its diagonal is 26 inches) and has a height of 16 inches. Then its width must be approximately

- (A) 10 in. (B) 18.8 in. (C) 20.5 in. (D) 22.3 in. (E) 30.5 in.

_____ 25. A set of identical wooden cubes are provided to a class, along with two cans of paint---one blue, the other yellow. Each side of a cube must be painted either all blue or all yellow, and no sides may remain unpainted. How many different ways are there to paint a cube, so that each could be identified from the others no matter which way it is turned?

- (A) 6 (B) 7 (C) 8 (D) 10 (E) 12