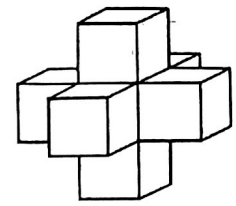
13. Mr. Harman needs to know the combined weight in pounds of four boxes he wants to mail. However, the only available scale is not accurate for weights less than 20 pounds or more than 30 pounds. So the boxes are weighed in triples in every possible way. The results are 21, 28, 29, and 30 pounds. What is the possible sum of the weight in pounds of the two boxes?

(A) 12 (B) 24 (C) 21 (D) 19 (E) 16

16. A shape is created by joining seven unit cubes, as shown. What is the ratio of the perimeter of the solid in units to the surface area in square units?



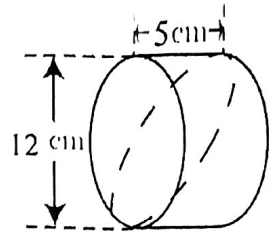
(A) 6 : 1 (B) 7 : 1 (C) 5 : 1 (D) 2 : 1 (E) 25 : 6

20. The students in Mr. Chen's math club took a penmanship test. Three-seventh of the boys and 8/11 of the girls passed the test, and an equal number of boys and girls passed the test. What is the minimum possible number of students in the class?

(A) 72 (B) 89 (C) 84 (D) 56 (E) 33

21. Jerry cuts a wedge from a 6-cm cylinder of bologna as shown by the dashed curve. Which answer choice is closest to the volume of his wedge in cubic centimeters?

(A) 25π (B) 75π (C) 90π (D) 144π (E) 603

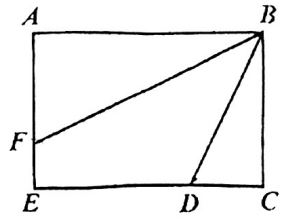


22. Find the number of positive integer values of n such that $n/7$ is a three-digit whole number and $7n$ a four-digit whole number.

(A) 105 (B) 121 (C) 127 (D) 133 (E) 34

23. In rectangle $ABCE$, $AF = 3FE$ and $ED = 4DC$. What is the ratio of the area of ΔBFD to the area of square $ABCE$?

(A) 1/6 (B) 2/9 (C) 17/40 (D) 1/3
(E) 17/20



24. Alex selects a positive integer less than 11, and Bob selects a positive integer less than 14. What is the probability that the product of the two numbers selected will be a square number?

(A) 1/10 (B) 17/108 (C) 19/130 (D) 3/22 (E) 17/154

25. As shown in the figure, the smallest circle has radius 5 inches, with each successive circle's radius increasing by 5 inches. What is the probability that a dart thrown at random will land in the white area?

(A) 7/12 (B) 43/100 (C) 5/11 (D) 4/13 (E) 21/100