

## 1-4

- 1 Juan organizes the stamps in his collection by country and by the decade in which they were issued. The prices he paid for them at a stamp shop were: Brazil and France , 6cents each , Peru 4 cents each , and Spain 5 cents each. (Brazil and Peru are South American countries and France and Spain are in Europe.)

Number of Stamps by Decade

Country	50s	60s	70s	80s
Brazil	4	7	12	8
France	8	4	12	15
Peru	6	4	6	10
Spain	3	9	13	9

Juan's Stamp Collection

His South American stamps issued before the '70s cos t him (     ) .

- A. \$0.40                      B. \$1.06                      C. \$1.80                      D. \$2.38                      E. \$2.64

- 2 On a twenty-question test, each correct answer is worth 5 points, each unanswered question is worth 1 point and each incorrect answer is worth 0 points. Which of the following scores is NOT possible? (     ) .

- A. 90                      B. 91                      C. 92                      D. 95                      E. 97

- 3 The six children listed below are from two families of three siblings each. Each child has blue or brown eyes and black or blond hair. Children from the same family have at least one of these characteristics in common. Which two children are Jim's siblings? (     ) .

Child	Eye Color	Hair Color
Benjamin	Blue	Black
Jim	Brown	Blonde
Nadeen	Brown	Black
Austin	Blue	Blonde
Tevyn	Blue	Black
Sue	Blue	Blonde

- A. Nadeen and Austin                      B. Benjamin and Sue  
 C. Benjamin and Austin                  D. Nadeen and Tevyn  
 E. Austin and Sue

4 How many integers between 1000 and 2000 have all three of the numbers 15, 20, and 25 as factors? (    ) .

- A. 1                      B. 2                      C. 3                      D. 4                      E. 5

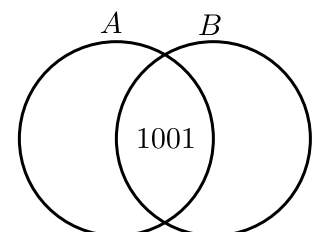
5 Twelve friends met for dinner at Oscar's Overstuffed Oyster House, and each ordered one meal. The portions were so large, there was enough food for 18 people. If they shared, how many meals should they have ordered to have just enough food for the 12 of them? (    ) .

- A. 8                      B. 9                      C. 10                      D. 15                      E. 18

6 Mindy made three purchases for \$ 1.98, \$ 5.04 and \$ 9.89. What was her total, to the nearest dollar? (    ) .

- A. 10                      B. 15                      C. 16                      D. 17                      E. 18

7 Set  $A$  and  $B$ , shown in the Venn diagram, have the same number of elements. Their union has 2007 elements and their intersection has 1001 elements. Find the number of elements in  $A$  (    ) .

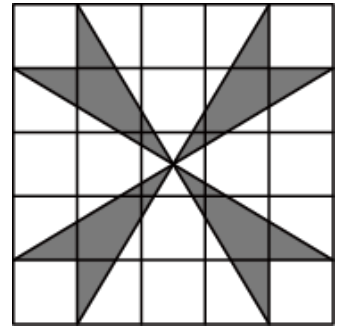


- A. 503                      B. 1006                      C. 1504                      D. 1507                      E. 1510

8 A mixture of 30 liters of paint is 25% red tint, 30% yellow tint and 45% water. Five liters of yellow tint are added to the original mixture. What is the percent of yellow tint in the new mixture? (    ) .

- A. 25      B. 35      C. 40      D. 45      E. 50

9 What is the area of the shaded part shown in the  $5 \times 5$  grid? (   ) .



- A. 4      B. 6      C. 8      D. 10      E. 12

10 Mary's winning art design is shown. The smallest circle has radius 2 inches, with each successive circle's radius increasing by 2 inches. Approximately what percent of the design is black? (   ) .



- A. 42      B. 44      C. 45      D. 46      E. 48

11 What time was it 2011 minutes after midnight on January 1, 2011? (   ) .

- A. January 1 at 9 : 31 PM      B. January 1 at 11 : 51 PM  
C. January 2 at 3 : 11 AM      D. January 2 at 9 : 31 AM  
E. January 2 at 6 : 01 PM

12 A shop advertises everything is "half price in today's sale." In addition, a coupon gives a 20% discount on sale prices. Using the coupon, the price today represents what percentage off the original price? (   ) .

- A. 10      B. 33      C. 40      D. 60      E. 70

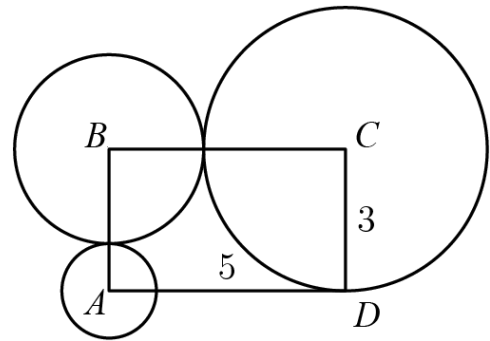
- 13 An equilateral triangle and a regular hexagon have equal perimeters. If the area of the triangle is 4, what is the area of the hexagon? ( ) .

A. 4                      B. 5                      C. 6                      D.  $4\sqrt{3}$                       E.  $6\sqrt{3}$

- 14 The first AMC 8 was given in 1985 and it has been given annually since that time. Samantha turned 12 years old the year that she took the seventh AMC 8. In what year was Samantha born? ( ) .

A. 1979                      B. 1980                      C. 1981                      D. 1982                      E. 1983

- 15 Rectangle  $ABCD$  has sides  $CD = 3$  and  $DA = 5$ . A circle of radius 1 is centered at  $A$ , a circle of radius 2 is centered at  $B$ , and a circle of radius 3 is centered at  $C$ . Which of the following is closest to the area of the region inside the rectangle but outside all three circles? ( ) .

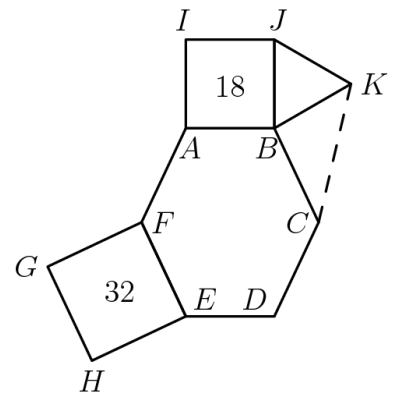


A. 3.5                      B. 4.0                      C. 4.5                      D. 5.0                      E. 5.5

- 16 Ralph went to the store and bought 12 pairs of socks for a total of \$24. Some of the socks he bought cost \$1 a pair, some of the socks he bought cost \$3 a pair, and some of the socks he bought cost \$4 a pair. If he bought at least one pair of each type, how many pairs of \$1 socks did Ralph buy? ( ) .

A. 4                      B. 5                      C. 6                      D. 7                      E. 8

- 17 In the given figure hexagon  $ABCDEF$  is equiangular,  $ABJI$  and  $FEHG$  are squares with areas 18 and 32 respectively,  $\triangle JBK$  is equilateral and  $FE = BC$ . What is the area of  $\triangle KBC$ ? ( ) .



- A.  $6\sqrt{2}$       B. 9      C. 12      D.  $9\sqrt{2}$       E. 32

18 The number  $N$  is a two-digit number.

- When  $N$  is divided by 9, the remainder is 1.
- When  $N$  is divided by 10, the remainder is 3.

What is the remainder when  $N$  is divided by 11? (   ) .

- A. 0      B. 2      C. 4      D. 5      E. 7