

Would you like to receive feedback from our execs? (marking your solutions, giving corrections, etc.)

Yes/No: _____

Multiple Choice

Highlight the correct answer for each question.

1. Which number logically follows this sequence?

4, 6, 9, 6, 14, 6, ?

- (A) 6 (B) 19 (C) 17 (D) 9 (E) 16

2. If $3 \times n = 6 \times 2$, then n equals

- (A) 6 (B) 2 (C) 9 (D) 5 (E) 4

3. A proposed new \$5 coin is called the "foonie". The foonie's two faces are identical and each has an area of 5 cm^2 . The thickness of the foonie is 0.5 cm. How many foonies are in a stack that has a volume of 50 cm^3 ?



- (A) 5 (B) 10 (C) 15 (D) 20 (E) 40

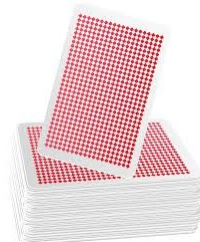
4. Each of the numbers 1, 5, 6, 7, 13, 14, 17, 22, 26 is placed in a different circle below. The numbers 13 and 17 are placed as shown.



Jen calculates the average of the numbers in the first three circles, the average of the numbers in the middle three circles, and the average of the numbers in the last three circles. These three averages are equal. What number is placed in the shaded circle?

- (A) 1 (B) 5 (C) 6 (D) 7 (E) 14

5. A deck of 100 cards is numbered from 1 to 100. Each card has the same number printed on both sides. One side of each card is red and the other side is yellow. Barsby places all the cards red side up, on a table. He first turns over every card that has a number divisible by 2. He then examines all the cards, and turns over every card that has a number divisible by 3. How many cards have the red side up when Barsby is finished?



- (A) 83 (B) 17 (C) 49 (D) 50 (E) 66

Word Problems

Either type your solutions or insert images of handwritten solutions. Be sure to show your work!

1. What is the smallest positive integer that is a multiple of each of 2, 4, 6, and 8?

2. Liza has a row of buckets. The first bucket contains 17 green discs and 7 red discs. Each bucket after the first contains 1 more green disc and 3 more red discs than the previous bucket. In which bucket is the number of red disks equal to the number of green disks?



3. Let A , B , and C be non-zero digits, so that BC is a two-digit positive integer and ABC is a three-digit positive integer made up of the digits A , B , and C . Suppose that:

$$\begin{array}{r} BC \\ A BC \\ + A BC \\ \hline 876 \end{array}$$

What is the value of $A + B + C$?

Survey

Your responses will not affect your likelihood of being counted for attendance. This is simply to let our execs know how we can improve. :)

1. Approximately how much time did you spend on this problem set?

- (A) Less than 15 mins
- (B) 15 mins to 30 mins
- (C) 30 mins to 1 hour
- (D) 1 to 2 hours
- (E) Over 2 hours

2. How difficult did you find this problem set?

- (A) Too easy
- (B) Fairly easy
- (C) Neutral
- (D) Fairly difficult
- (E) Too difficult

Thank you for your feedback!