Answer # S

Sample Questions

What is the sum of the integral factors of 2014?

Answer # S2

Sample Question1

What is the sum of the integers that satisfy $1 \leq |2x - 5| \leq 8$?

Answer # 1

Question #1

If y varies directly as x, and y = 81 when x = 18, then what is the value of x when y = 36?

Answer # 2

Question #2

Sarah has 2 bins where she collects numbers. In bin A, she has every positive number less than 142 that is a multiple of 5. In bin B, she has every positive number less than 150 that is a multiple of 3. How many numbers in bin A are NOT in bin B?

Answer # 3

Question #3

Line *m* has equation $2x + 3y = -12$. Line *n* is perpendicular to line *m* and passes through the point (4, 5). Line *p* is perpendicular to line *n* and passes through the point (3, -3). If the equation of line *p* is written in standard form, what is the value of $|A + B + C|$?

Answer # 4

Question #4

What is the units digit of $3^{(2014!)}$?

Answer # 5

Question #5

If $12(x + 5) - 4(x - 7) = 5(x - 3) + 40$, then what is the value of $9x$?

Answer # 6

Question #6

What is the least common multiple of 18, 21, and 30?

Answer # 7

Question #7

There are two numbers such that the number times 5 more than itself is equal to 36. What is the product of the two numbers?

Answer # 8

Question #8

Simplify: $\frac{12}{\sqrt{7}+2}$.

Answer # 9

Question #9

A ladder is leaning against the outside wall of a house. If the ladder is 15 feet long, and the base is 9 feet from the base of the house, how many feet will the top of the ladder be from a window that is 17 feet off of the ground?

Answer # 10

Question #10

If (x, y) is the solution for the following system of equations, find xy.

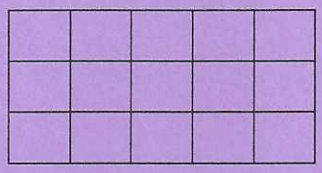
$$5x - 4y = 19$$

$$2x + 3y = 3$$

Answer # 11

Question #11

How many different paths are there from the upper-left corner to the lower-right corner of the grid below if moves may only be directly to the right or directly down?



Answer # 12

Question #12

If $(x-4)^4 = Ax^4 + Bx^3 + Cx^2 + Dx + E$, then what is the value of $A + B + C + D + E$?