Answer # S1	
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Sample Question 1 What is the sum of the integer factors of 124?

Answer #	‡ S2
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## Sample Question 2

My magic number is positive, and when it is multiplied by 7 and the answer is less than 100. What is the sum of all the possible values of my magic number?

Answer	#	1	
74154401		-	

## Question #1

If the operation "&" is defined as  $h \& k = h^2 + k$ , find the missing part if  $10 \& \_\_ = 15$ ?

Answer # 2

## Question #2

A purchase of \$15.00 costs \$16.80 after tax is added. What percent tax was charged for the purchase?

Answer # 3

Answer#4

Question #3

The line 2x + 3y = -12 passes through the point (3, a). What is the value of  $a^2 + 6a + 9$ ?

# Question #4

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



## Question #5

Evaluate:  $-2 + 6 \div (3 - 2^2) \cdot 27 \div 9$ .

Answer # 6

#### **Question #6**

My mother gave me some money to spend. I spent \$35 at the mall on a shirt. I spent  $\frac{1}{3}$  of what I had left on a new pair of shoes. Then I put  $\frac{3}{4}$  of what I had left in the bank. If I still have \$25, how many dollars did my mother give me in the beginning?

#### Answer # 7

### **Question #7**

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 # 8

Question #8

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

Answer #9

Question #9 What is the area of the triangle shown?



### Question #10

What is the fraction, in simplest form, whose decimal equivalent is  $0.1\overline{36}$ ?



Answer # 11

## Question #11

A fair coin is flipped 3 times. What is the probability that exactly 2 of the flips are "heads up"?

# Question #12

If  $\sqrt{30625}$  is an integer, what is that integer?

Answer # 12