

Name: \_\_\_\_\_

School: \_\_\_\_\_

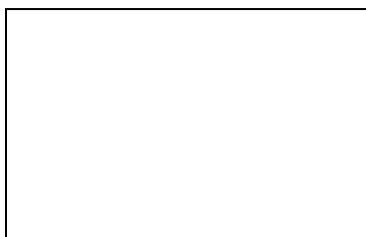
Grade: \_\_\_\_\_

Practice Problem (No points)

### Practice Problem

What number belongs in the shaded box:

$$65 - (43 + 21) = (65 - 43) - \blacksquare$$



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11 points

5 points

0 points

### **Problem 1**

What time is it 150 minutes before 4:00 PM?



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11 points

5 points

0 points

### **Problem 2**

Each of my shoes weighs the same. If 2 of my shoes weigh 10 kg together, then the total weight of 12 of my shoes is...?



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11 points

5 points

0 points

### **Problem 3**

On Sunday, there is one rabbit in a cage. If the number of rabbits in the cage doubles each day, on what day of the week will the number of rabbits exceed 20?



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11 points

5 points

0 points

### **Problem 4**

What is the sum of the distinct prime factors of 90?



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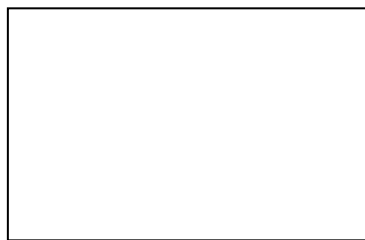
11 points

5 points

0 points

### **Problem 5**

A particular square has side length 12. Another square has area 12. What is the difference between the areas of these two squares?



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11 points

5 points

0 points

### **Problem 6**

How many triangles of any size are found in the figure below?



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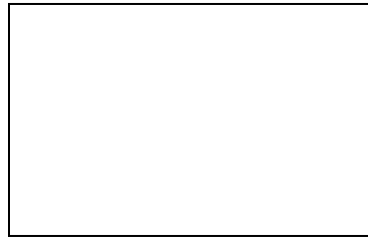
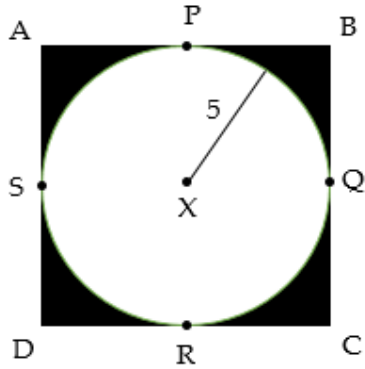
11 points

5 points

0 points

### Problem 7

Square ABCD circumscribes a circle. Points P, Q, R, and S are midpoints of their respective sides. Point X is the center of the circle, and the radius of this circle is 5. What is the total area of the shaded regions? Express your answer in terms of  $\pi$ .



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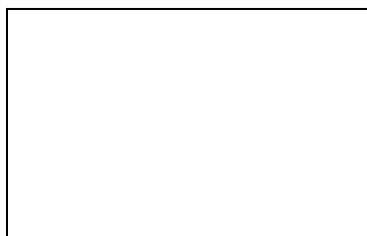
11 points

5 points

0 points

### Problem 8

What is the average of the first five non-negative powers of 10? Round your answer to the nearest tenth.



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11 points

5 points

0 points

### **Problem 9**

The set  $\{9, 5, 4, 10, x\}$  has five numbers. If the mean (average) of the set equals  $x$ , what is the value of  $x$ ?



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11 points

5 points

0 points

### **Problem 10**

How many *ordered* triples of positive integers are there in the form of  $(a, b, c)$  that sum to 6?



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