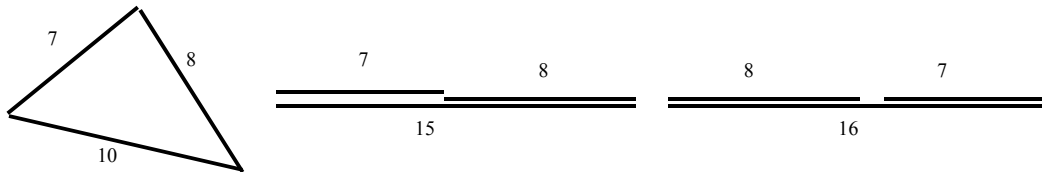


Student Name: _____

1. 1 month from now, it will be December. 2 months from now, it will be January. 2008 months from now, what month will it be?

Answer: _____

2. Notice that it is possible to form a triangle with side lengths 7, 8, 10 but impossible to form a triangle with side lengths 7, 8, 15 or 7, 8, 16. If the first two side lengths of a triangle are 7 and 8, and the third side length is an integer, how many possibilities are there for the third side length?



Answer: _____

3. All pages from 1 to 100 of “The Nine Chapters on the Mathematical Arts” are numbered. How many times does the digit “2” appear in these page numbers?

Answer: _____

4. How many odd positive integers divide into 60?

Answer: _____

5. What is

$$\frac{3^{15} + 3^{15}}{3^{12}} \quad ?$$

Answer: _____

6. If I can trade 2 apples for 5 bananas, and 3 bananas for 1 orange, how many oranges can I get for 12 apples?

Answer: _____

Student Name: _____

7. A farmer has only chickens and cows. In total his animals have 18 heads and 54 legs. How many cows does he have?

Answer: _____

8. It is possible to place the numbers from 1 to 25 in a 5x5 square such that each row has the same sum. What is this sum?

Answer: _____