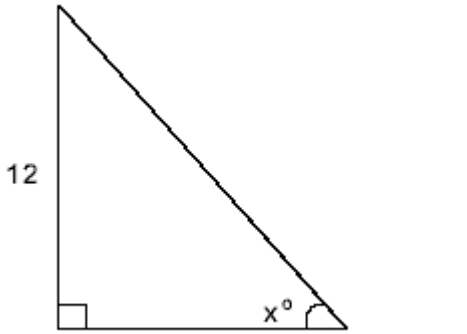
Numeric Entry Test 1

1. 145 300 610 1230
In the above sequence every term after the first is formed by multiplying by x and then adding y, where x and y are positive integers. What is the value of x + y?
2. A confectioner has 500 mint, 500 orange and 500 strawberry flavored sweets. He wishes to make packets containing 10 mint, 5 orange and 5 strawberry sweets. What is the maximum number of packets of this type he can make?
3. If S is the sum of 8,6,4,2 and x, what must be the value of x for x to equal 1/5 S ?
4. 25 per cent of 600 is equal to 15 per cent of what number?
5. What is the maximum number of points of intersection of four distinct lines in a plane?
6. If one edge of a 6-inch ruler is to be marked in 1/10 inch units, how many marks will there be on the edge including the 0 and 6 inch marks?



(figure not to scale)

7. If the area of the right triangle above is 72, what is the value of x?
8. Given that the sum of the odd integers from 1 to 99 inclusive is 2500, what is the sum of the even integers from 2 to 100 inclusive?
9. In a certain game of 50 questions, the final score is calculated by subtracting twice the number of wrong answers from the total number of correct answers. If a player attempted all questions and received a final score of 35, how many wrong answers did he give?
10. What positive value for k would make the following the equations of a pair of parallel lines on the same coordinate axes?
y = kx – 2 and ky = 9x – 7

Answer key

1. 12
2. 50

3. 5

4. 1000

5. 6

6. 61

7. 45

8. 2550

9. 5

10. 3