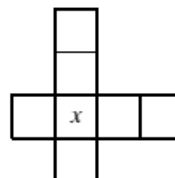


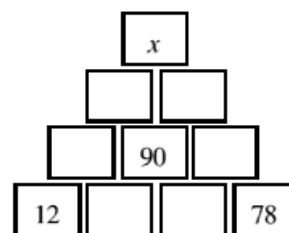
JMC Number Grids

1. The numbers 2, 3, 4, 5, 6, 7, 8 are to be placed, one per square, in the diagram shown such that the four numbers in the horizontal row add up to 21 and the four numbers in the vertical column also add up to 21. Which number should replace x ?



A 2 B 3 C 5 D 7 E 8

2. In the diagram on the right, the number in each box is obtained by adding the numbers in the two boxes immediately underneath. What is the value of x ?



A 300 B 320 C 340 D 360
E more information needed

3. In this *Multiplication Magic Square*, the **product** of the three numbers in each row, each column and each of the diagonals is 1. What is the value of $r + s$?

p	q	r
s	1	t
u	4	$\frac{1}{8}$

A $\frac{1}{2}$ B $\frac{9}{16}$ C $\frac{5}{4}$ D $\frac{33}{16}$ E 24

4. In a 7-digit numerical code each group of four adjacent digits adds to 16 and each group of five adjacent digits adds to 19. What is the sum of all seven digits?

A 21 B 25 C 28 D 32 E 35

5. In this magic square, which uses all whole numbers from 7 to 15 inclusive, each of the rows, columns and the two main diagonals has the same total. Which number replaces n in the completed square?

n		
		7
		14

A 8 B 9 C 10 D 11 E 12

Solutions

1. D
2. D
3. B
4. B
5. A (remember: first think of the total of the numbers)