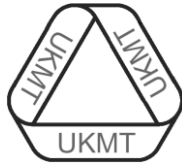


UKMT Team Maths Challenge
Regional Final 2010
Crossnumber

1	2		3		4		5	
			6				7	
8		9			10	11		
		12	13					14
15					16		17	
		18		19		20		
	21		22			23	24	
25			26		27			
	28				29			

Across

- 1 A prime factor of 8765 (4)
- 4 The interior angle of a regular polygon; its digits have a product of twelve (3)
- 6 A Fibonacci number whose digits add up to twenty-four (3)
- 7 A prime number which is one greater than a square number (2)
- 8 Ninety-nine greater than the number formed by reversing the order of the digits (3)
- 10 A multiple of 25 Across (3)
- 12 9 Down multiplied by seven (3)
- 15 A number with seven factors (2)
- 17 The third side of a right-angled triangle with hypotenuse 9 Down and other side 25 Across (2)
- 19 (10 Across) per cent of 8 Across (3)
- 21 An odd multiple of nine (3)
- 23 The product of the seventh prime number and the eleventh prime number (3)
- 25 An even number (2)
- 26 The lowest common multiple of 25 Across and 11 Down (3)
- 28 A multiple of eleven, and also the mean of 12 Across, 16 Down, 19 Across, 24 Down and 27 Down (3)
- 29 A power of nineteen (4)



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1	2		3		4		5	
			6				7	
8		9			10	11		
		12	13					14
15					16		17	
		18		19		20		
	21		22			23	24	
25			26		27			
	28				29			

Down

- 2 An even square number (3)
- 3 One third of 21 Across (2)
- 4 The interior angle of the regular polygon which has twice as many sides as the regular polygon whose interior angle is 4 Across (3)
- 5 One less than a multiple of eleven (3)
- 8 A power of nine (4)
- 9 The mean of 3 Down, 7 Across, 13 Down, 17 Across and 27 Down (2)
- 11 Ninety-one less than 10 Across (2)
- 13 The sum of the squares of the digits of 23 Across (2)
- 14 A factor of 4567 (4)
- 16 The difference between 11 Down and 3 Down (2)
- 18 The square root of 8 Down (2)
- 20 The highest common factor of 10 Across and 24 Down (2)
- 21 The total number of days in a year in the months whose names do not contain the letter A (3)
- 22 A prime number that is ten less than a cube number (3)
- 24 A square number multiplied by five; the product of its digits is forty (3)
- 27 A triangle number which is the sum of two prime numbers that differ by eight (2)



UKMT Team Maths Challenge
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Crossnumber

Team Number.....

School Name

Answer	1	2		3		4		5		Marks (7)
Mark										
Answer				6				7		Marks (6)
Mark										
Answer	8		9			10	11			Marks (6)
Mark										
Answer			12	13					14	Marks (6)
Mark										
Answer	15					16	17			Marks (6)
Mark										
Answer			18		19		20			Marks (6)
Mark										
Answer		21		22			23	24		Marks (6)
Mark										
Answer	25			26		27				Marks (6)
Mark										
Answer		28				29				Marks (7)
Mark										

Total = _____ /56

+ 4

Score = _____