



UKMT Team Maths Challenge
Regional Final 2012
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				

Across

- 2 The largest prime factor of 2564 (3)
- 4 The size, in degrees, of the interior angle of a regular polygon which has more than 23 Down sides (3)
- 6 The mean of 3 Down, 10 Across, 10 Down and 23 Across (3)
- 7 The difference between 10 Down and a power of 3 (3)
- 10 The highest common factor of 6664 and 9333 (2)
- 11 A palindromic number (4)
- 12 A square number (2)
- 13 A number with twelve factors (2)
- 15 1 Down as a percentage of 25 Across (2)
- 16 The sum of the first six positive whole numbers (2)
- 17 The sum of 15 Across and a multiple of 21 Across (4)
- 18 The sum of two cube numbers (2)
- 21 A number, the product of whose digits is zero (3)
- 23 A Fibonacci number and also one less than a triangular number (3)
- 24 The size of the bearing, in degrees, of Y from X when the bearing of X from Y, in degrees, is 4 Across (3)
- 25 A multiple of 73 (3)

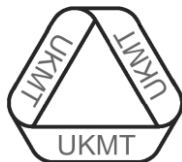


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18			19					20
		21		22		23		
24				25				

Down

- 1 Half of 20 Down (3)
- 2 A square number (2)
- 3 The difference between two cube numbers (2)
- 4 The size, in degrees, of the exterior angle of a regular polygon which has more than 23 Down sides (2)
- 5 One thousand less than a Fibonacci number (3)
- 8 A factor of 23 Across (2)
- 9 23 Down percent of 25 Across (3)
- 10 The largest prime factor of 4652 (4)
- 11 A multiple of 16 Across; the sum of its digits is 21 Down (4)
- 14 The highest common factor of 20 Down and 25 Across (3)
- 18 The perimeter of an isosceles triangle, two of whose sides are 4 Across and 6 Across (3)
- 19 The sum of the prime factors of 18 Across (2)
- 20 The sum of the squares of 2, 14 and 26 (3)
- 21 A triangular number (2)
- 22 The sum of all six digits in the central column (2)
- 23 The sum of the smallest prime number and the seventh triangular number (2)



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Team Number.....

School Name

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

Total = _____ /56

+ 4

Score = _____