

Across

- 1 Both a square and a cube
- 6 $\frac{1}{2}p^2(p + 1)$ where p is prime
- 7 Solution to $x^2 - 2009x + 14014 = 0$
- 8 Cube
- 9 Prime squared
- 10 One less than a multiple of eleven
- 14 Number divisible by two and seven; 19 Across minus 5 Down
- 16 Fourth power
- 18 Three times 6 Across
- 19 One more than a multiple of nine
- 20 Multiple of either four or nine
- 23 The mean of 9 Across, 16 Across and 23 Across is 16 Across
- 25 Sum of two distinct squares
- 26 4 Down plus twice 11 Down
- 28 Half the product of two consecutive integers, also a multiple of seven.
- 29 Odd number, four more than a multiple of 25 Across



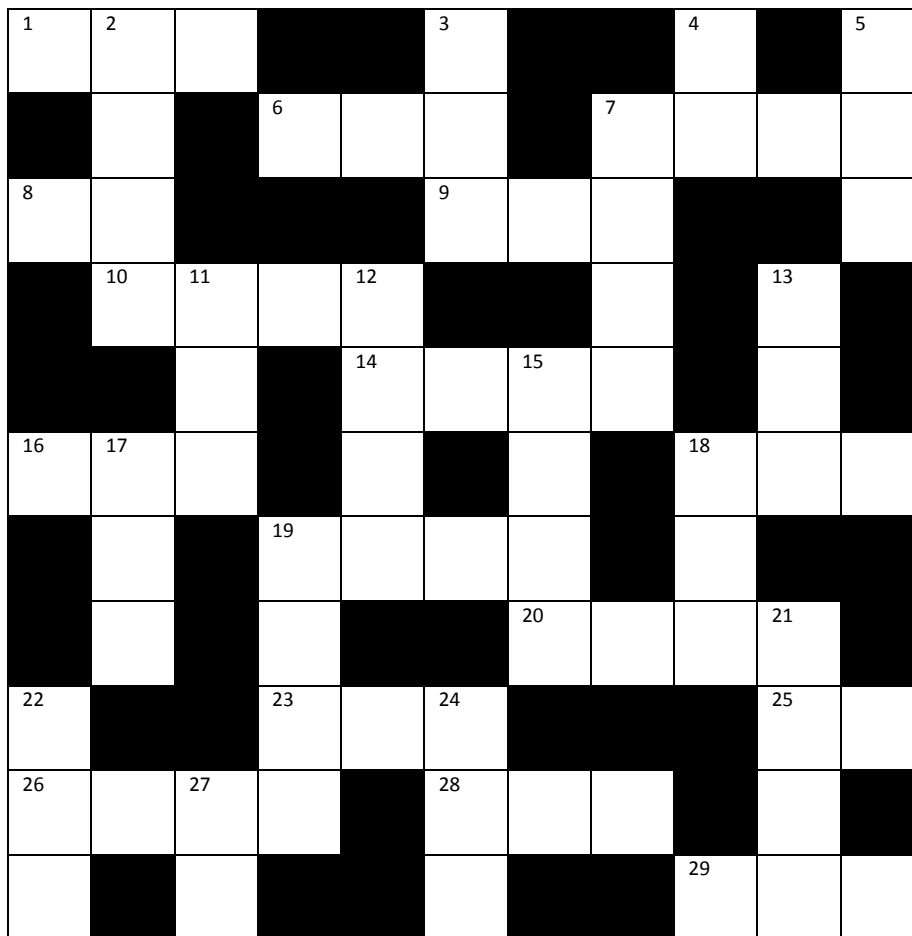
Senior Team Maths Challenge

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Further Mathematics Support Programme



Down

- 2 Power of two
- 3 Prime, one less than a multiple of 4 Down
- 4 Solution to $x^4 - 116x^2 + 1600 = 0$
- 5 One more than a square, three less than a cube
- 7 Multiple of seven, its digit sum is prime
- 11 One more than a multiple of 5 Down, greater than 3 Down
- 12 Mean of 2 Down, 13 Down and 21 Down
- 13 One more than three times 3 Down
- 15 Product of two numbers differing by two
- 17 24 Down minus a factor of 14 Across
- 18 Twice a prime squared
- 19 Remainder when 19 Down is divided by 13 Down is 6 Across
- 21 Fibonacci number where consecutive digits differ by one
- 22 Palindrome, twice a prime
- 24 Twelve times a prime
- 27 Three times a factor of 18 Across



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Team Number.....

School / College Name

										Total (6)
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Total score = _____/72



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