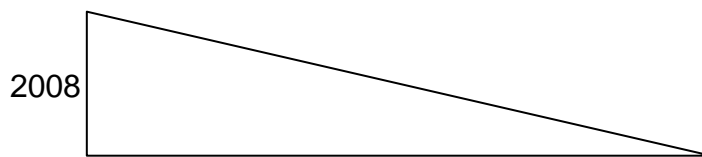


**MEI Conference 2008 Delegate Pack Quiz
QUESTIONS**

1. 2008! ends in a string of zeros. How many of them are there?
2. 3/07/2008 is a Thursday. On what day of the week will 3/07/3008 fall?
3. What is the maximum possible value of the product of a set of positive integers whose sum is 2008?
4. The integers from 1 to N are written down in alphabetical order in English. '*Two thousand and eight*' is in position 2008. What is N?
5. What is the smallest positive integer with exactly 2008 factors?
6. How many right-angled triangles, with all sides an integer length in centimetres, have shortest side length 2008cm?



7. In (a variant of) the game fizz-buzz, the positive integers are called out in order starting from 1 but replacing any number which is a multiple of 3 with 'fizz' and replacing any number which is a multiple of 5 with 'buzz'. So the game begins:
1, 2, fizz, 4, buzz, fizz, 7, 8, fizz, buzz, 11, fizz, 13, 14, fizzbuzz, 16, ...
What is the 2008th number to be said aloud?
8. Write 2008 as the sum of consecutive positive integers.
9. If you write down the integers, in English, from 1 to 2008, you will find that only one letter is written more often than the letter E. What is it and how many times is it written? (Note, 1729, for example, is written '*One thousand seven hundred and twenty nine*' and not '*Seventeen hundred and twenty nine*'.)
10. How many integers less than 2008 share no common factors (other than 1) with 2008?