



4. The year 2010 is one in which the sum of its digits is a factor of the year itself. How many more years will it be before this is next the case?
- A 3 B 6 C 9 D 12 E 15

1074



©UKMT

-
4. **B** $2 + 0 + 1 + 1 = 4$. Multiples of 4 are even, hence 2011 is not valid and the same argument applies to 2013, 2015, 2017 and 2019.
 $2 + 0 + 1 + 2 = 5$. The units digit for multiples of 5 is 0 or 5, hence 2012 is not valid.
 $2 + 0 + 1 + 4 = 7$. But $\frac{2014}{7} = 287\frac{5}{7}$, hence 2014 is not valid.
 $2 + 0 + 1 + 6 = 9$. Since $2016 = 9 \times 224$, 2016 is valid.
Hence we have to wait $2016 - 2010 (= 6)$ more years.