5. How many integers between 1 and 2014 are multiples of both 20 and 14?

A 7 B 10 C 14 D 20 E 28

---

5. **C** The prime factorisations of 20 and 14 are $20 = 2 \times 2 \times 5$ and $14 = 2 \times 7$. The lowest common multiple of 20 and 14 is 140 as $140 = 2 \times 2 \times 5 \times 7$. For a number to be a multiple of 20 and 14 it must be a multiple of 140. As $2014 \div 140 = 14$ remainder 54, there are 14 integers in the required range. Note: The integer 0, which is also a multiple of 20 and of 14 is excluded as we are considering numbers *between* 1 and 2014.