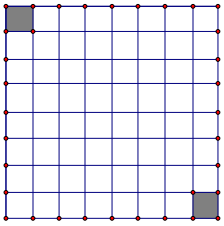
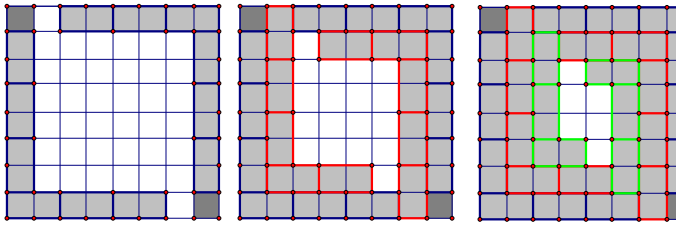
1. even
2. no, T is odd
3. even
4. We know that *even* $\times$ *even* = *even*, but do we know that *even* $\div$ *even* = *even*? Consider $18 \div 6$. Both numbers are even, but the answer is 3, which is odd! So we have to look at the actual product. Write out the product of the first ten counting numbers is divided by the product of the first five even numbers.

$$\frac{1 \cdot 2 \cdot 3 \cdot 4 \cdot 5 \cdot 6 \cdot 7 \cdot 8 \cdot 9 \cdot 10}{2 \cdot 4 \cdot 6 \cdot 8 \cdot 10} = 1 \cdot 3 \cdot 5 \cdot 7 \cdot 9$$

   We end up with five odd numbers being multiplied together, so the answer will be odd
5. $13 = 2 + 11$ 2
6. 1 to 95 INCLUSIVE $(5 + 10 + 15 + \ldots + 90 + 95)$: yes, the sum of all multiples of 5 is even.
   1 to 95 EXCLUSIVE $(5 + 10 + 15 + \ldots + 85 + 90)$: no, the sum of all multiples of 5 is odd.
7. it is odd
8. no because five odd numbers cannot have an even sum.
9. 0 or 5
10. Let's draw a picture.



This is the board we start with. We can't immediately tell whether or not we can put dominos on it yet. Let's try to put some dominos in and see what happens.



We can see that there will be no way to put 3 more dominoes into the empty space in the middle without cutting the domino. So there is no way to do this.