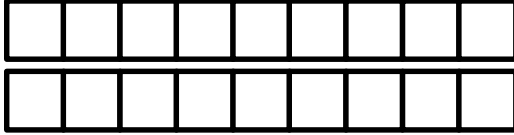


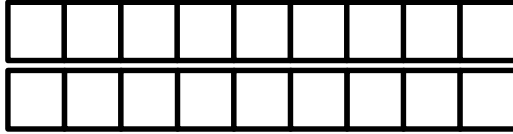
Possible Solutions

a) Is 18 an odd or even number? Explain your thinking.

I used 18 cubes and paired them in groups of 2. Since I didn't have any cubes left over, I know that 18 is an even number.



I used 18 linking cubes and put them into 2 equal groups. There were an equal number of cubes in each group, so 18 is an even number.



I know that 18 can be decomposed into $9 + 9$. I know this is a doubles fact so it is an even number.

b) Is the sum of $17 + 18$ an odd or even number? Explain your thinking.

I used 17 cubes and 18 cubes. All pairs in the 17 are matched with one left over and all pairs in 18 are matched. So together there would still be one left over. An odd number + an even number = an odd number so the sum of $17 + 18$ is an odd number.

I used 17 beans and 18 beans to make 17 pairs with one left over so the sum is an odd number.

I know that $17 + 18$ is a double plus 1 fact so the sum is an odd number.

c) There are 18 children in line and three children walk away. Is there an odd or even number of children left in line? Explain your thinking.

18 is an even number because I have 9 pairs. If I take away 3, that's one pair + 1 more. When I take away 1 from a pair, that leaves one left over. An even number - an odd number = an odd number so there is an odd number of children left in line.

I subtracted to find the difference between 18 and 3. The difference is 15 and it can be decomposed into $7 + 8$ which is a doubles plus one fact. So 15 is an odd number. There is an odd number of children left in line.