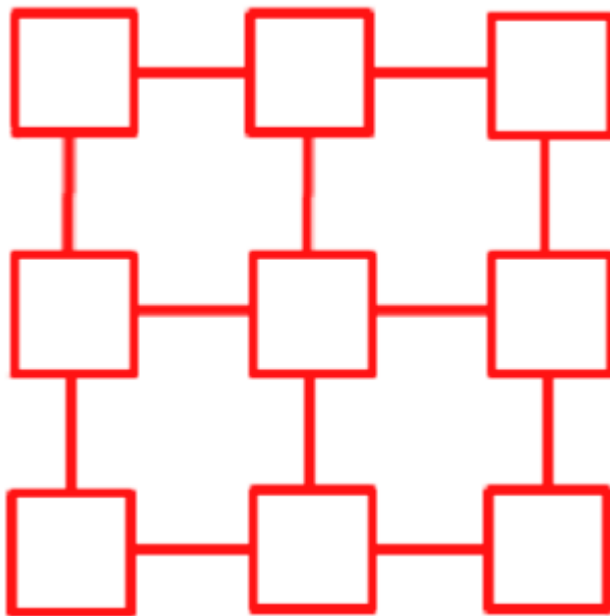


Number Differences

You might like to try [A Ring of Numbers](#) and [More Rings of Numbers](#) before this problem.

Place the numbers from 1 to 9 in the squares below so that the difference between joined squares is odd. (You must use each of the numbers once.)



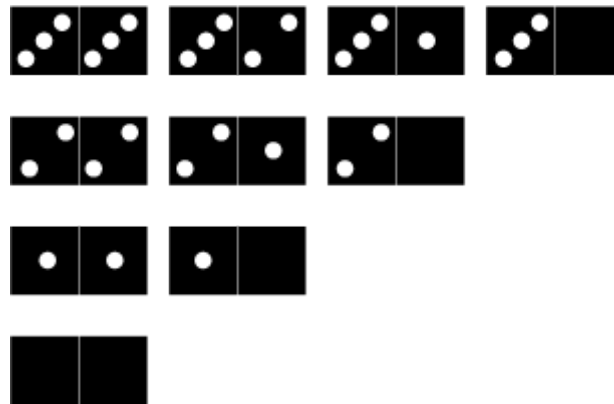
Can you find some other ways to do this? Explain how you do this.

Can you put the numbers in the squares so that the difference between joined squares is even? Explain your answer.

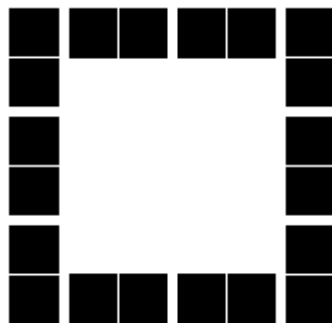
What general statements can you make about odd and even numbers?

Domino Square

These are the 'double-3 down' dominoes.



Use these dominoes to make this square so that each side has eight dots.



This task is designed to test your thinking! Do you have the resilience and the strategies to solve it?

Take Three Numbers

Choose any two odd numbers and one even number, such as 3, 5 and 2.

How would you like to represent these numbers?

Try adding them together and draw/make the representation of their sum.

What do you notice about the answer?

Look closely at your model.

Would it work in exactly the same way if you used different numbers but still two odds and one even?

Can you use your example to prove what will happen every time you add two odd numbers and one even number?

See if you can explain this to someone else. Are they convinced by your argument?

Once you can convince someone else, see if you can find a way to show the argument on paper. You might draw something or take a photo of things you have used to prove that your result is always true from your example.