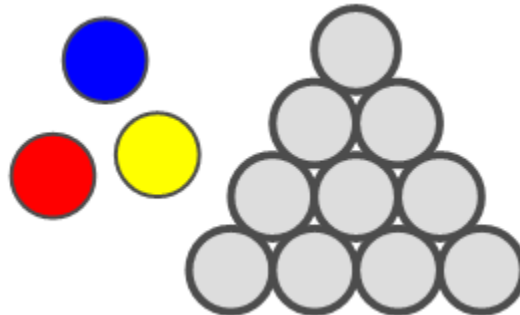


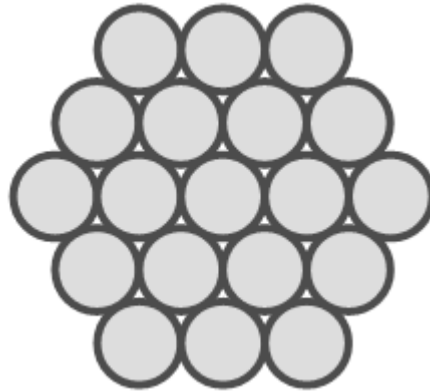
Touching Circles

Fill the following triangle with red, yellow and blue circles so that no circles of the same color are next to each other.



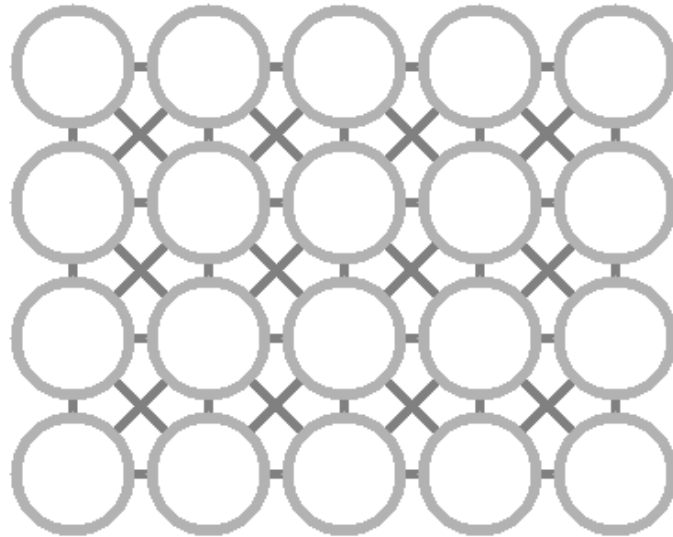
Extensions:

- Is your answer unique?
- Can you fill a larger triangle with red, yellow and blue circles so that no circles of the same color are next to each other?
- Can you fill the following hexagon with red, yellow and blue circles so that no circles of the same color are next to each other?

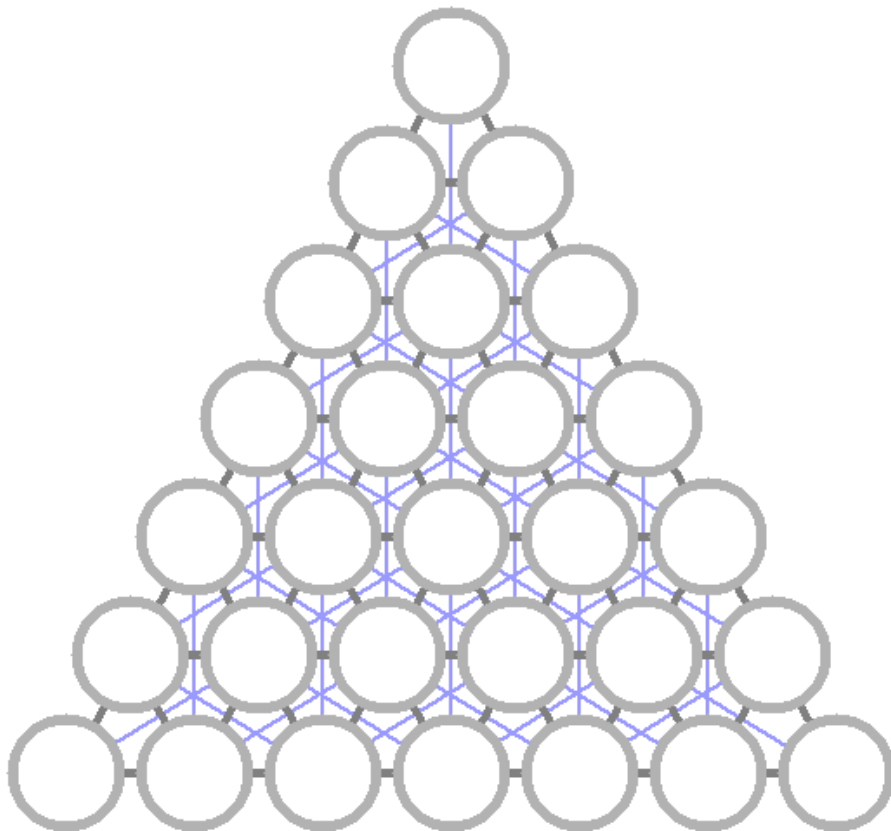


- How many circles of each of the three colors are needed for a triangle with N chairs per side?
- Find a shape which is not possible to fill using the three colors.

- Mathew, Desirée and Cade of Alice M. Curtis Campus ask you to fill the following square with four colors, so that no connected circles share the same color.

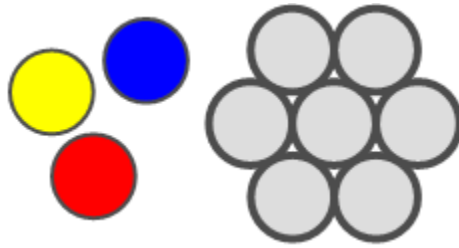


- Can four colors also be used to fill this triangle? (Remember, no connected circles can share the same color.)



Two person game:

Each player takes turns tossing a circles into the small hexagon below. A player may not toss a circle so that two touch that have the same colour. The winner is the last player able to move.



Same idea with a terrestrial theme...



Colour the bunny rabbits... the same idea again...

The Math in This Problem:

Using red, blue, and yellow circles, students are challenged to fill in various shapes made up of circle units. The test of Touching Circles is to not have a circle next to another one of the same colour. Since the different colours can be applied one by one, this makes for a fun two-player game, with the winner being the last one able to make a move.