



## Ice Cream Scoops

### **Introduction:**

This is a beautiful task as it is open to everyone, can be solved in different ways and can also extend to work in combinatorics – a nice way of organizing counting. Ask students to work on this task in groups, and to display their results on posters. Often we name students' different approaches and strategies.

### **Task:**

In shops with lots of ice-cream flavors there are many different flavor combinations, even with only a 2-scoop cone. With 1 ice-cream flavor there is 1 kind of 2-scoop ice cream, but with 2 flavors there are 3 possible combinations (eg vanilla/vanilla, chocolate/chocolate, and vanilla/chocolate).

- How many different kinds of 2-scoop cones can be made with 10 flavors?
- What about “n” flavors?
- Create a poster that represents your group's thinking.
- Make sure to illustrate all of your different methods and make connections between them.
- Create a convincing argument to justify your solution.