CHES Math Club – 4th grade
Problems for 27 February 2020

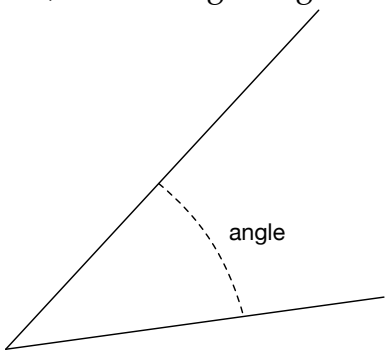
Angles and Olympiad 4 review

1. What is $100 - 200 + 300 - 200$?

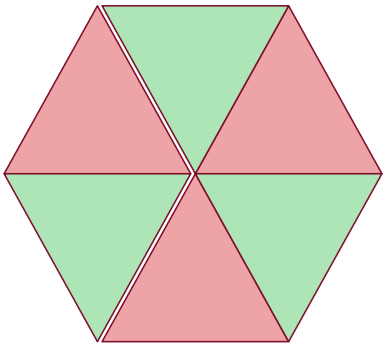
2. What is 111 - 177 + 889 - 723?

3. What is the largest 4-digit number that satisfies the following properties:
   (a) Its four digits are in decreasing order
   (b) The sum of the digits is 18
   (c) The number is a multiple of 15

When two lines meet, they form at least one *angle*. Angles are often measured in *degrees*, where a right angle is 90 degrees.

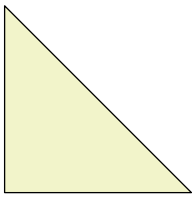


4. In an equilateral triangle, all three sides have the same length. What is the measure of its angles, in degrees? Hint: 6 equilateral triangles can fit together to make a hexagon:



5. If we add up all the angles of an equitriangle triangle, what does it add to?

6. A *right triangle* is one that has a right angle in it. An isoceles right triangle is one whose two short sides have the same length. What is the measure of the two other angles? (Hint: can you fit it together with another isoceles right triangle to make a familar shape?) What do the three angles add up to?



In fact, in any triangle, the angles add up to 180. We can see this by drawing a line through a corner that is parallel to the opposite side.