Age 14+ Level ★★
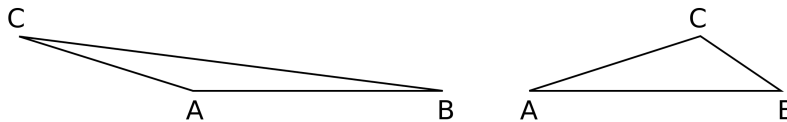# Worksheet 1 – Solutions

1. **3-sided**
   There are 2 possibilities for the length of the third side

   nrich.maths.org/10157/solution

2. **Pink and White**
   P moves through a distance of 64cm
   nrich.maths.org/2902/solution

3. **Either Side**
   The path made by rolling the disc along the inside
   of the triangle is another equilateral triangle.
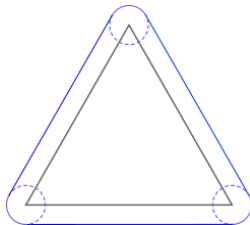
   The path made by rolling the disc
   around the outside is shown on the left.
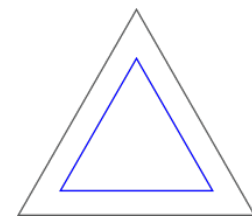
   nrich.maths.org/2409/solution

4. **Snail's Pace**
   The proportion of the cube's face which the snail could reach is $\frac{\pi}{8}$
   nrich.maths.org/9765/solution

5. **Triangular wheel**
   The total length of the path traced by C is $\frac{4\pi}{3}$
   nrich.maths.org/10132/solution

These problems are adapted from UKMT (ukmt.org.uk) and WMC (competition.ac) problems.