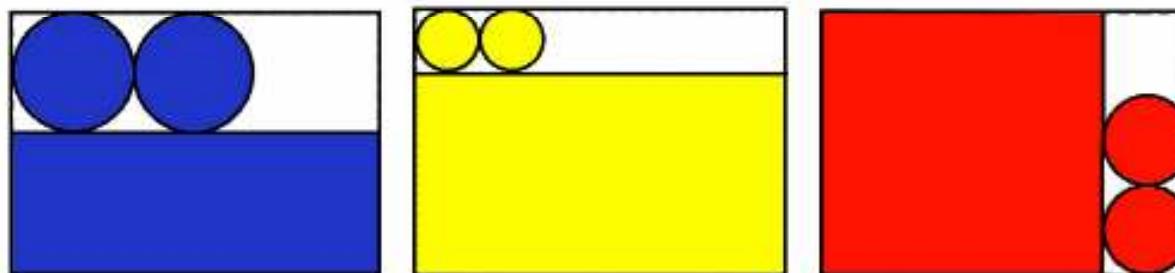


# Efficient Cutting



A cylindrical container can be made by using two circles for the ends and a rectangle which wraps round to form the body.

To make cylinders of varying sizes, the three pieces can be cut from a single rectangular sheet in several ways. For example:



Using a single sheet of A4 paper, make the cylinder with the largest volume. The cylinder must be closed off by a circle at each end.

What are its dimensions?

Thousands more problems can be found on the NRICH Maths website:

**[www.nrict.maths.org](http://www.nrict.maths.org)**