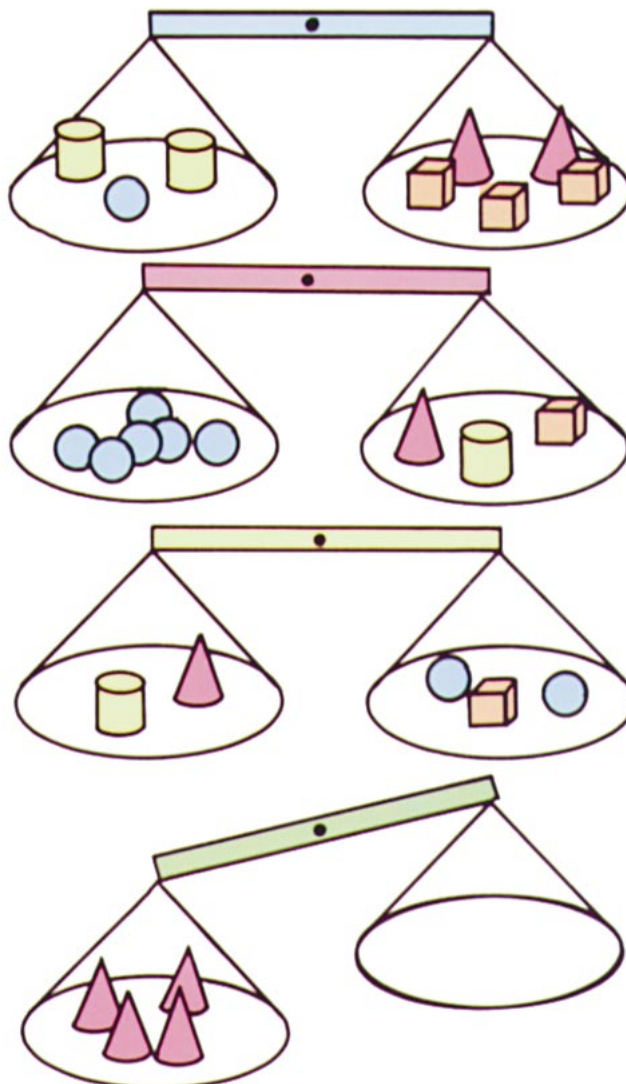


The Balancing Shapes

Problem-of-the-Week

The Problem

What is the least number of objects that will balance the fourth scale?



Strategies and Hints

1. Turn the first three balance scales into a system of equations. Why might it appear at first glance that the problem cannot be solved?
2. Find the weights of the cylinder, cone, and cube in terms of the sphere. Then use these three equations to write a four-part proportion showing the relative weights of the objects.