



Maths puzzles



Bridge Brain Teaser



One dark night, four Roman soldiers need to cross a narrow, wooden bridge. They have one torch between them and the bridge is too narrow and too dangerous to cross without it. The bridge is only strong enough to hold the weight of 2 soldiers at any one time. All four soldiers must cross the bridge, but they do not all walk at the same speed. The time taken to cross the bridge for each soldier is: 1 minute, 2 minutes, 7 minutes and 10 minutes. What is the shortest time they can take to get all 4 soldiers across the bridge?

Truss Triangle Challenge



The Baltimore Truss shown above was developed in the 1870s and was used for bridges that carried trains, as they needed to be very strong. Truss bridges depend on the strength of triangles within their structure, to resist the forces of tension and compression. Have a look at the zoomed in section of the truss shown (right). How many triangles can you count in total?

