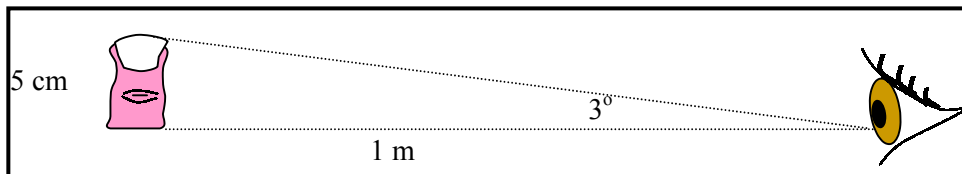# Thumb in Your Eye

Apparatus

nothing – students use own thumbs, and ruler or tape measure if necessary

Action

The students hold their thumb at arms length and look at it. They then calculate the angle subtended at their eye by their thumb.

The Physics

When you hold your thumb at arms length it is approximately a metre away, and is about 5 cm tall. The angle subtended is only 3°. The resolving power of the eye is very good, and it is easy to resolve small features on your thumb which have an angular separation much less than this.

Accompanying sheet

Thumb in Your Eye

Hold your eye at arms length and look at it.
How can you work out the angle subtended at your eye by your thumb?

What does this tell you about the resolving power of the eye?