

Moments Problem

What is the benefit to having a property that is invariant to translation, rotation, and scaling?

ANSWER:

If you want to identify the type of some shape, you usually don't want to care where it is in the image, nor how far away the camera was. Properties (numerical values) that don't change when you move the object are useful for this. Imagine how complex it would be if you needed a different description for every place an object could appear.