# Pervasive Ideas

**CONCEPT**

Linearity (../pervasiveIdeas/PI2.html)

Axioms and axiomatic systems (../pervasiveIdeas/PI6.html)

Symmetry (../pervasiveIdeas/PI7.html)

Iteration (../pervasiveIdeas/PI9.html)

Averages (../pervasiveIdeas/PI11.html)

**CONTEXT**

History of maths (../pervasiveIdeas/PI8.html)

Group theory (../pervasiveIdeas/PI10.html)

**PROCESS**

Multiple representations (../pervasiveIdeas/PI1.html)

Proof (../pervasiveIdeas/PI3.html)

Conjecturing (../pervasiveIdeas/PI4.html)

Visualising (../pervasiveIdeas/PI5.html)

Generalising and specialising (../pervasiveIdeas/PI12.html)

# Symmetry

## Summary

Humans are very good at detecting symmetry. It seems that we have evolved to look for certain underlying structure, which includes symmetry. Mathematicians have taken this further, and describe various sorts of structure as being examples of symmetry. Finding symmetry is often satisfying in itself, but can also lead mathematicians to be able to explain something better, or to understand an idea in more depth.

## Resources

🔍 The bigger picture (../resources/PI7_RT15/index.html)

## Appearances