H4 *Congruence and Similarity* Introduction

Learning objectives

This unit is focused on *congruent* and *similar* shapes and you need to understand the differences between these two concepts. After completing Unit H4 you should

* • understand the concept of congruent shapes and be able to use the congruence tests for triangles

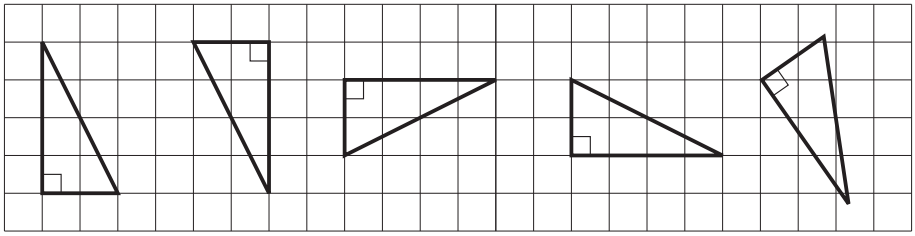
* • understand the concept of similar shapes and be able to determine similar shapes.

Introduction

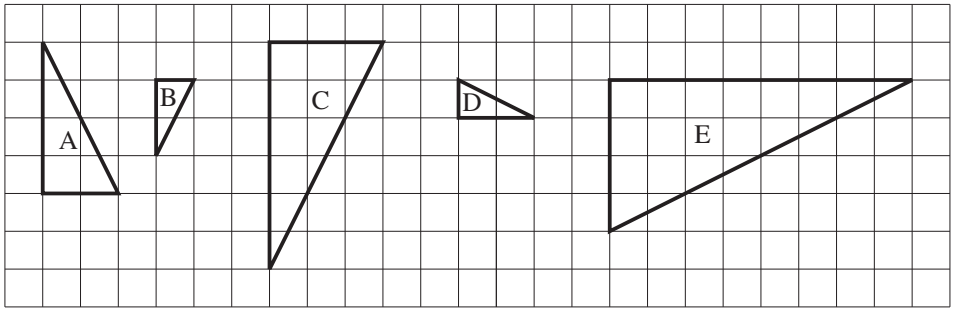
See Unit H1 for background information.

Key points and principles

- *Congruent shapes* are identical but can have different orientations.
  For example, these five shapes are all congruent.



- *Similar shapes* have corresponding angles equal and corresponding sides in the same ratio.
  For example, shapes A, B, C, D and E are all similar; B and D are also congruent.



Facts to remember

- See *Key points and principles* above.

There are four tests for congruency of triangles, namely

- Side, Side, Side (SSS)
- Side, Angle, Side (SAS)
- Angle, Angle, Side (AAS)
- Right angle, Hypotenuse, Side (RHS)

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Glossary of terms

- *Congruent shapes* are identical but can have different orientations. Examples are given in *Key Points and principles* above.
- *Similar shapes* have equal angles and corresponding sides in the same ratio. Examples are given above.

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