a Alpha Exercise
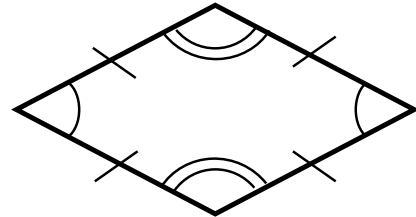
Write down as many facts as you can deduce from each of these sketches.
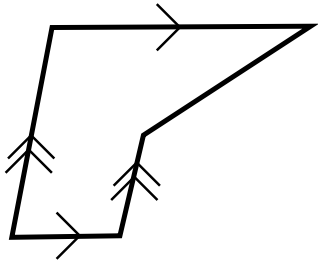
a)
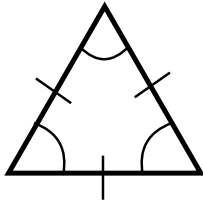
- 3 equal angles
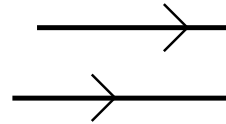- 3 edges of equal length
- Equilateral triangle

b)

- Two pairs of equal angles
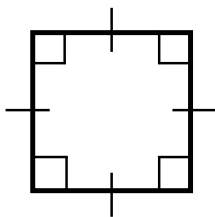- 4 edges of equal length
- Rhombus

c)

- Two separate pairs of parallel edges
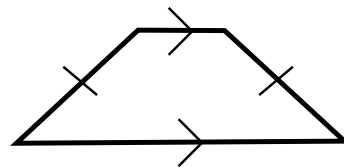- Pentagon

d)

- Parallel

e)

- 4 right angles
- 4 edges of equal length
- Square

f)

- One pair of parallel edges
- A different pair of edges of equal length
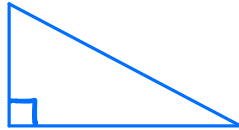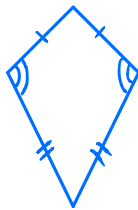- Isosceles trapezium

β

Beta Exercise

Sketch the following shapes. A sketch need not be accurately measured, but it needs to be **labelled geometrically**.
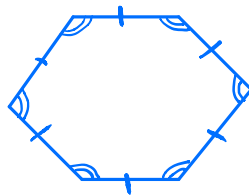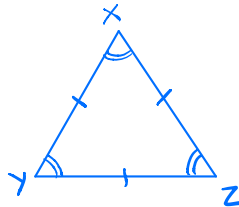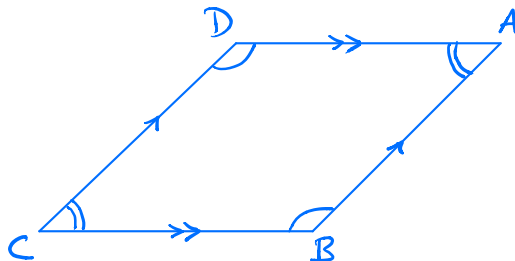
(a) A right-angled triangle.

(b) A kite.

(c) A regular hexagon.

(d) A triangle XYZ where the lengths of XY, YZ and XZ are equal.

(e) A parallelogram ABCD where ∠ABC and ∠ADC are obtuse.

Gamma Exercise
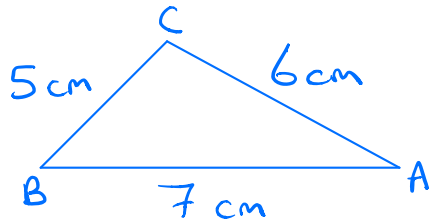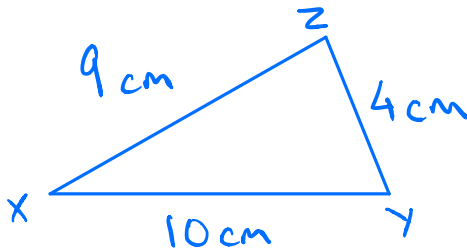
Sketch the following triangles. A sketch need not be accurately measured, but it needs to be **labelled geometrically**.
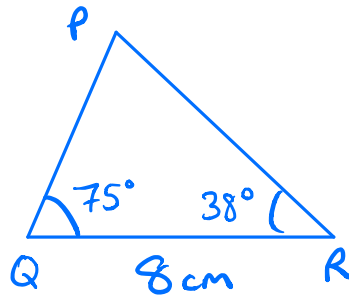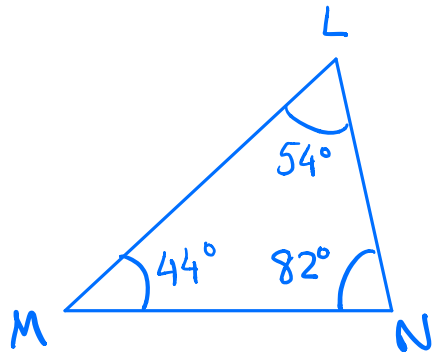
(a)   △ABC, where AB is 7 cm, BC is 5 cm and AC is 6 cm.

(b)   △XYZ, where XY is 10 cm, XZ is 9 cm and YZ is 4 cm.

(c)   △PQR, where QR is 8 cm, ∠PQR is 75º and ∠PRQ is 38º.

(d)   △LMN, where ∠LMN is 44º, ∠MLN is 54º and ∠LNM is 82º.

G1f Drawing diagrams from a written description ©BossMaths
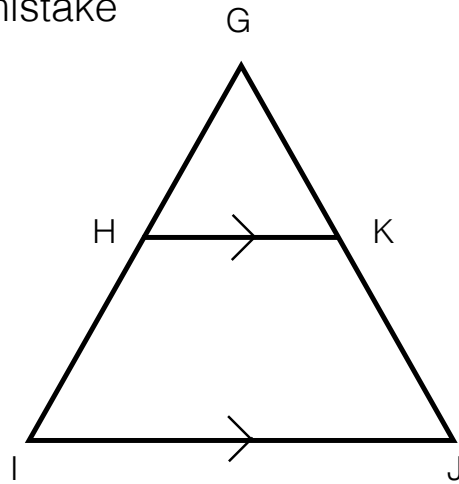
Explain the mistake

Denny says the following:

"HK and IJ are the same."

Can you give a better description of the relationship between HK and IJ?

HK and IJ are parallel.

Exam-style question

Sketch a pentagon ABCDE with the following properties:

• AB and AE are the same length as each other
• BC and DE are the same length as each other and are longer than AB
• ∠BCD is 90°
• ∠CDE is not 90°

Remember to label your sketch.