Interpenetrations

EGD Grade 11 & 12 (Revision)

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First Angle Orthographic Projections

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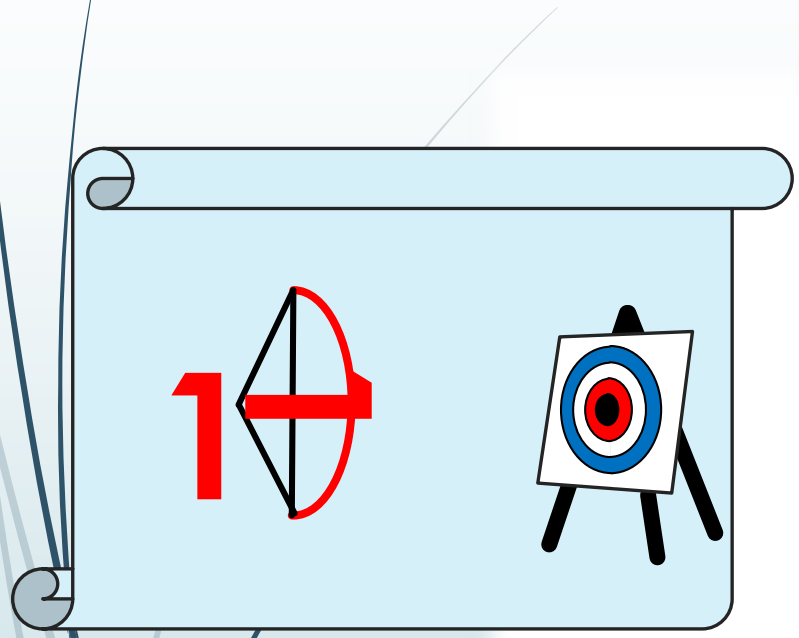
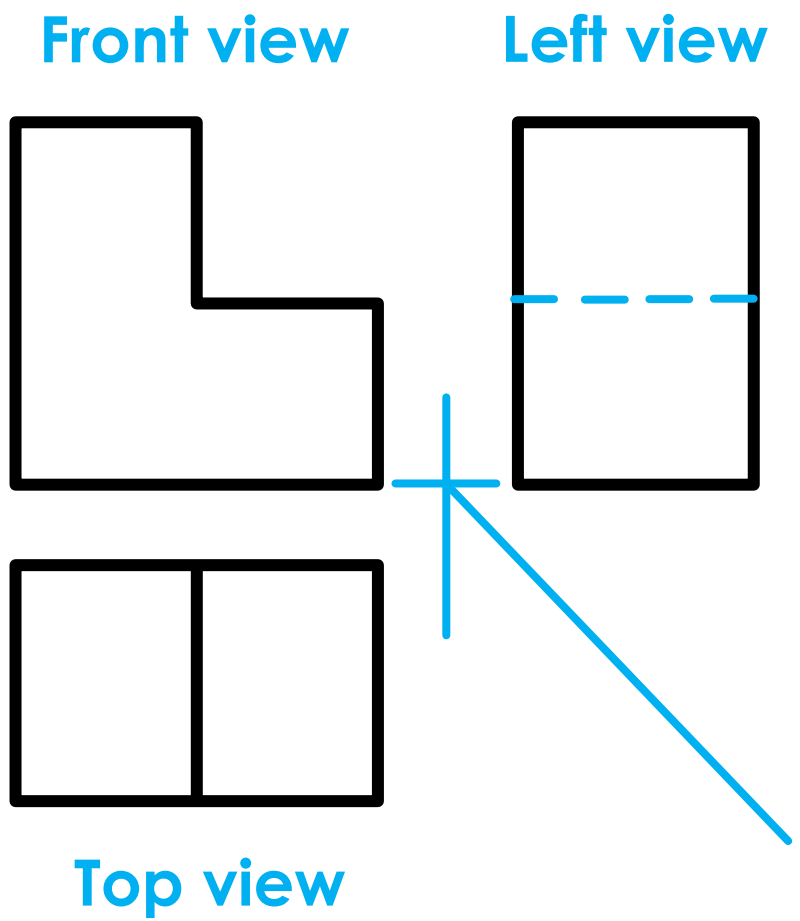
First Angle Orthographic Projections (F.A.O.P.)





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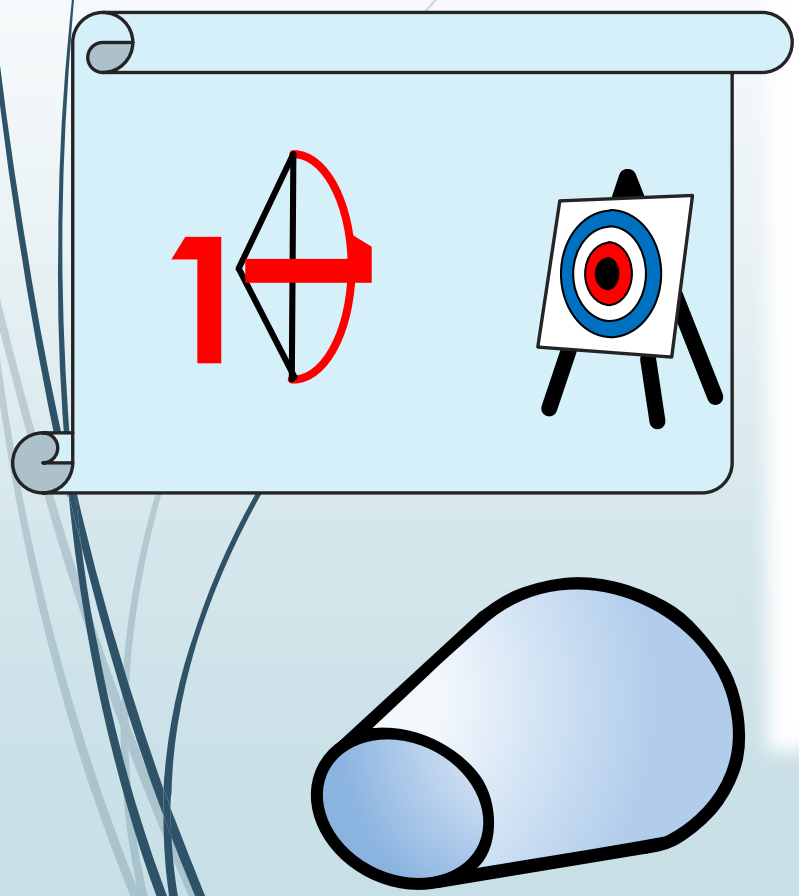
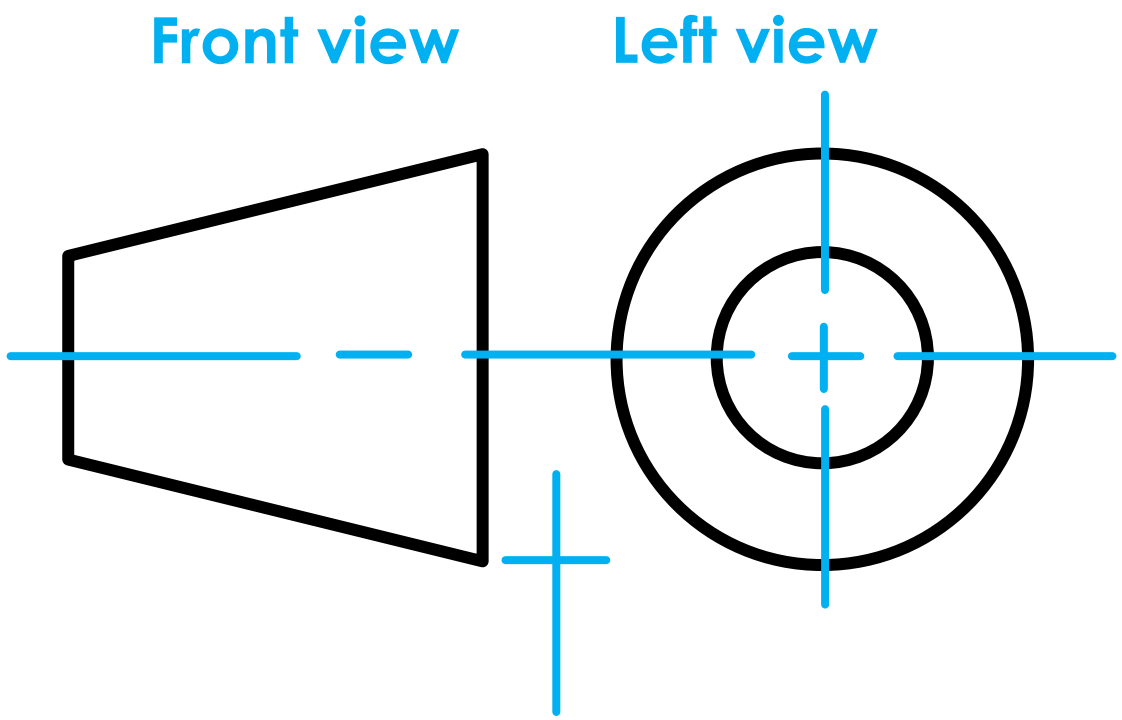
Projection symbol for First Angle Orthographic Projections



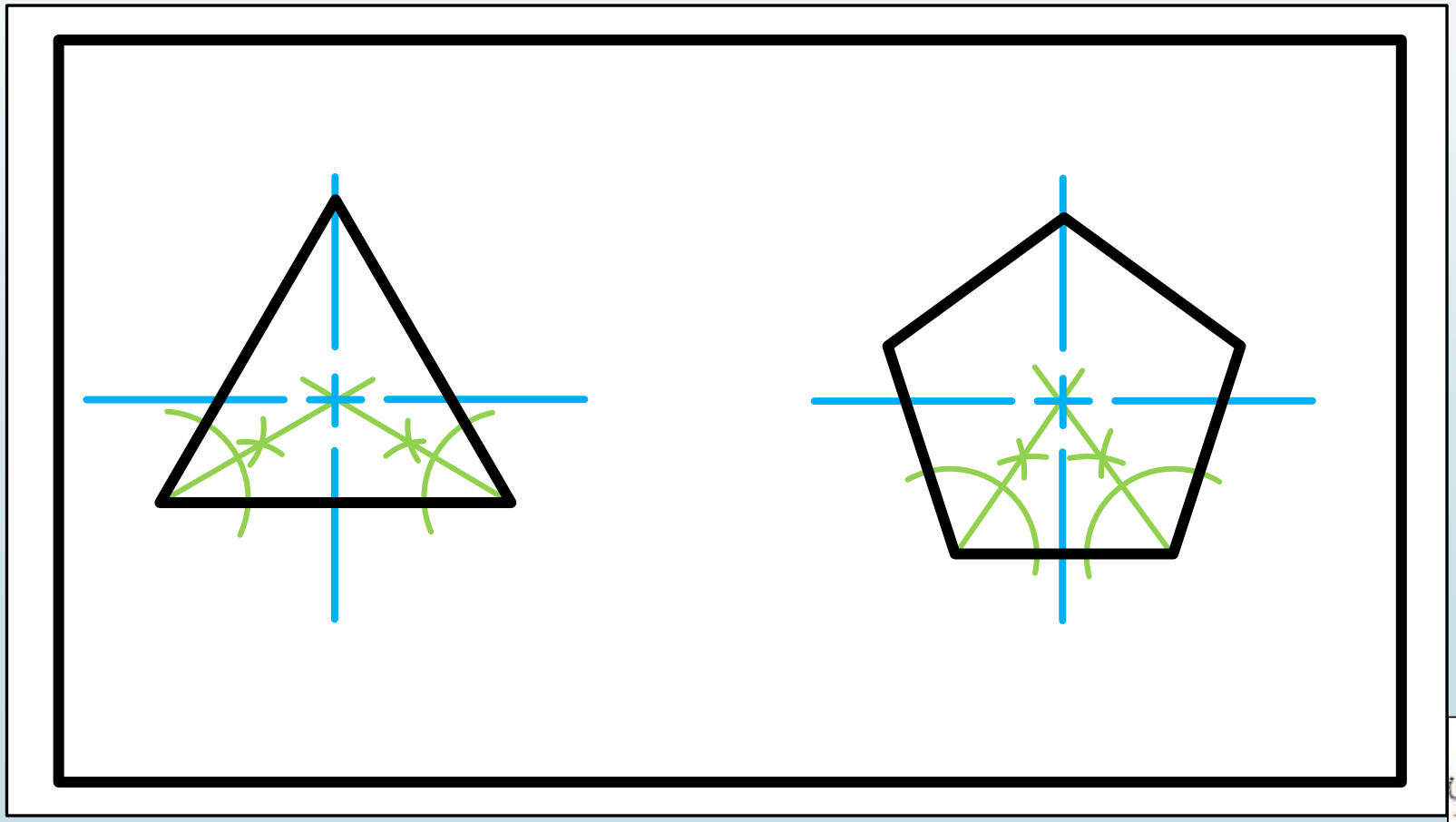


First Angle Orthographic Projections (F.A.O.P.)

- All work on Paper 1 will normally be in F.A.O.P unless otherwise stated:
  - Civil analytical drawings
  - Solid Geometry
  - **Interpenetrations**
  - Transition pieces
  - Civil drawings

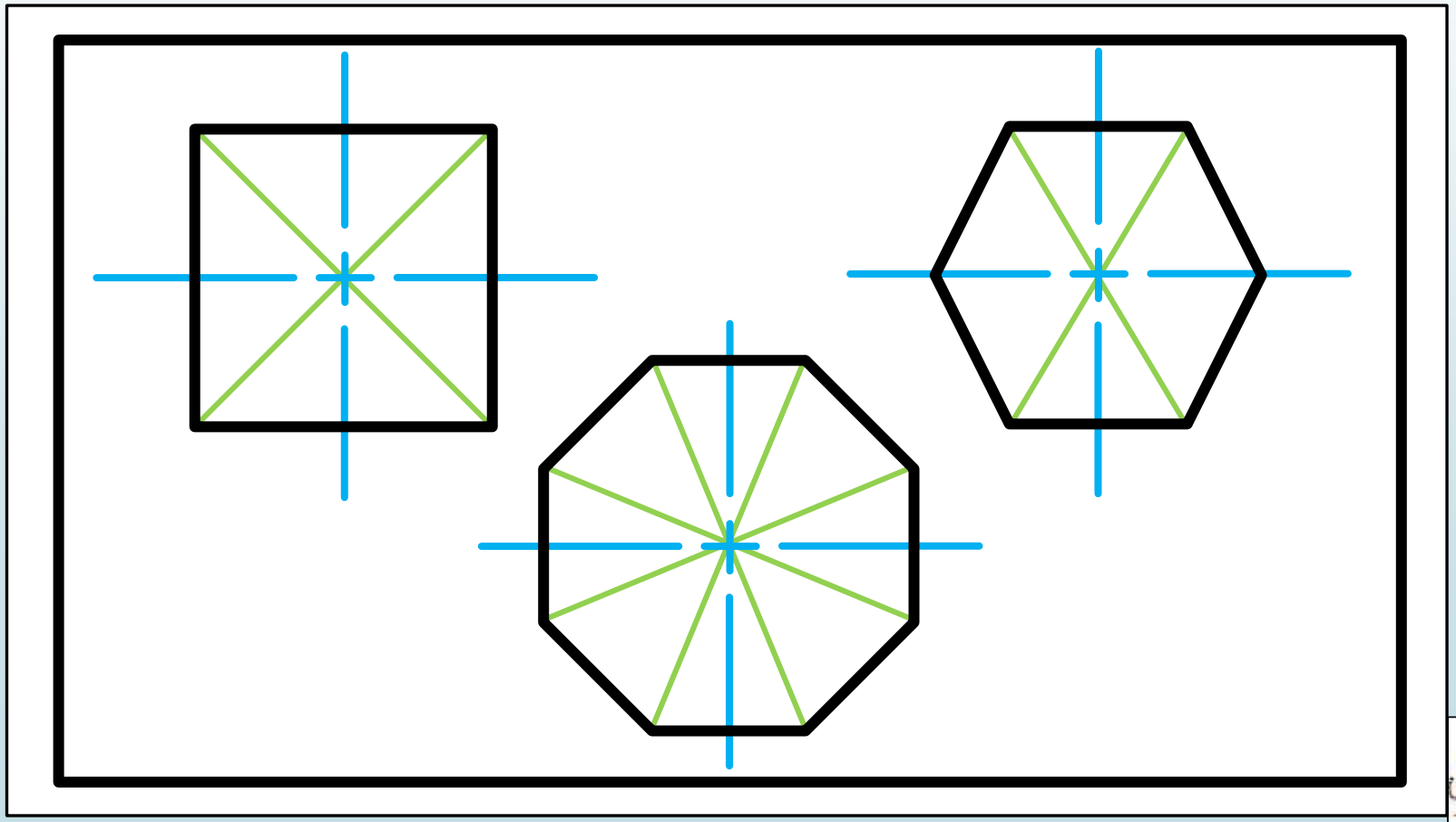
Determine the centre of a polygon

- Polygons with uneven sides
  - Bisecting the angle



Determine the centre of a polygon

- Polygons with even sides
  - Join the opposite corners



Interpenetration standard question

Question 2: Interpenetration

Given:

- The incomplete front view and top view of an equilateral triangular prism that has to fit around a square prism. The axes of both prisms lie in a common vertical plane
- An auxiliary view of the triangular prism

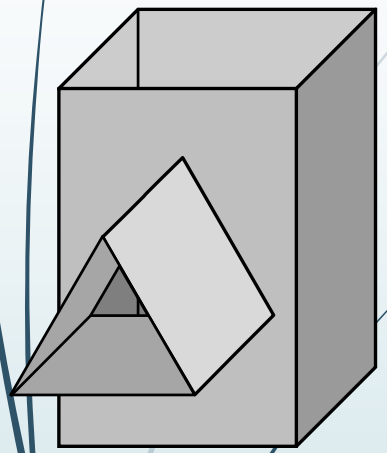
Instructions:

Draw, to scale 1:1, the following:

1. The given top view
2. The complete front view clearly showing the curve of interpenetration
3. The complete right/left view

- Show ALL hidden detail
- Shw ALL necessary construction.

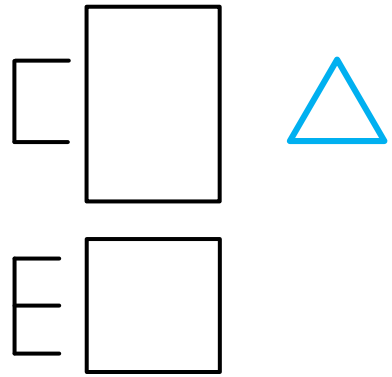
What is interpenetrations?



Question 2: Interpenetration
Given:
* The incomplete front view and top view of an equilateral triangular prism that has to fit around a square prism. The axes of both prisms lie in a common vertical plane
* An auxiliary view of the triangular prism

Instructions:
Draw, to scale 1:1, the following:
1. The given top view
2. The complete front view clearly showing the curve of interpenetration
1. The complete left view

* Show ALL hidden detail
* Shw ALL necessary construction.



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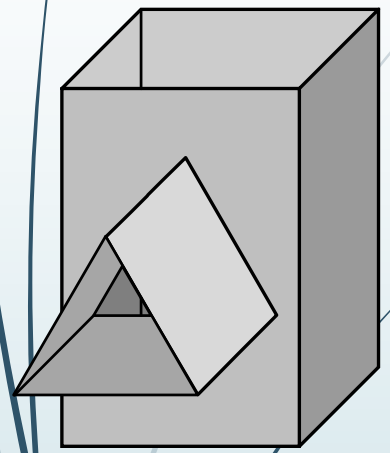
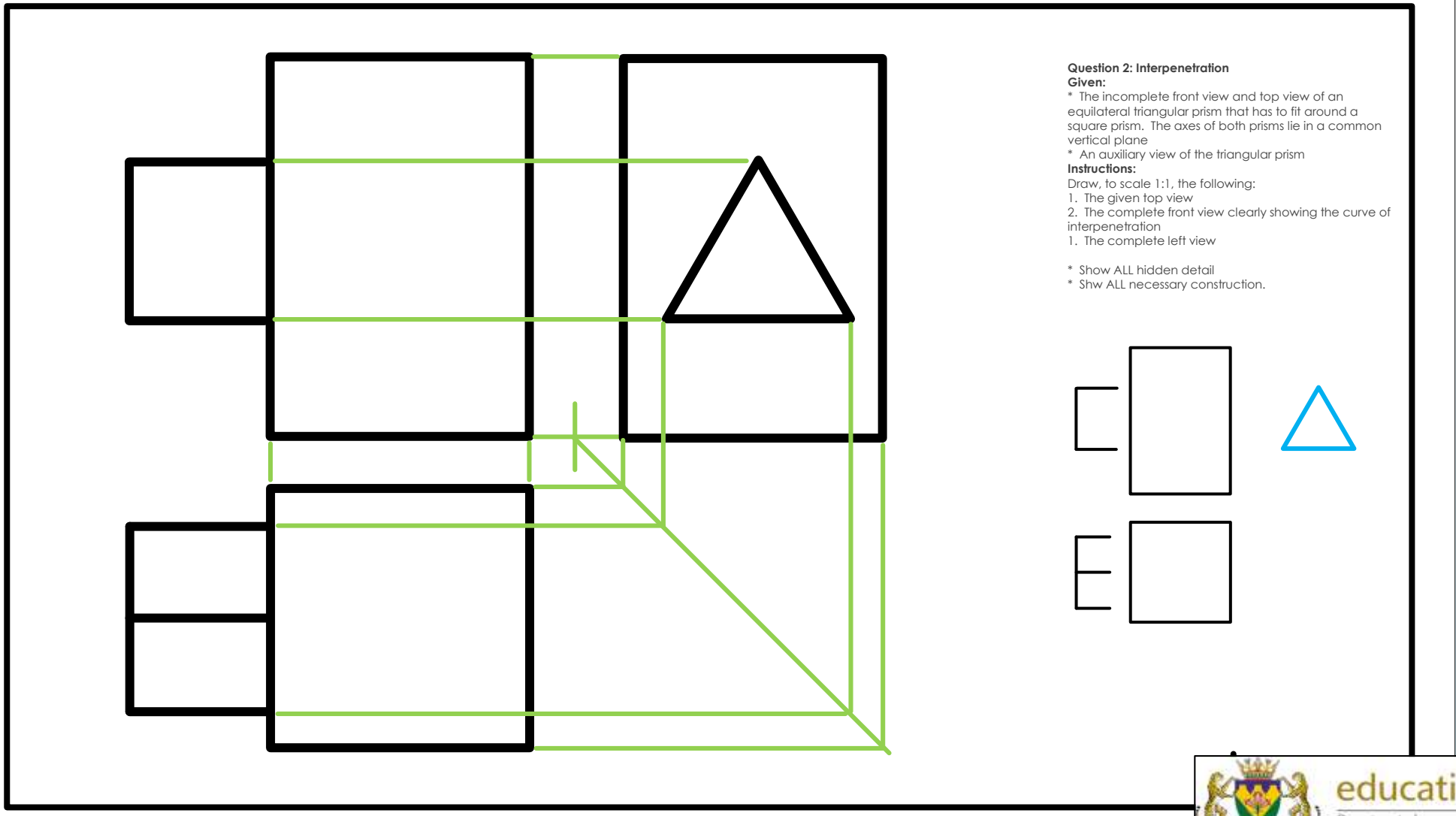
What is interpenetrations?





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Given:
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Instructions:
Draw, to scale 1:1, the following:
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1. The complete left view

* Show ALL hidden detail
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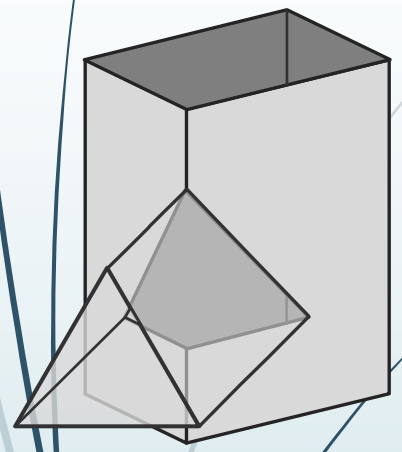
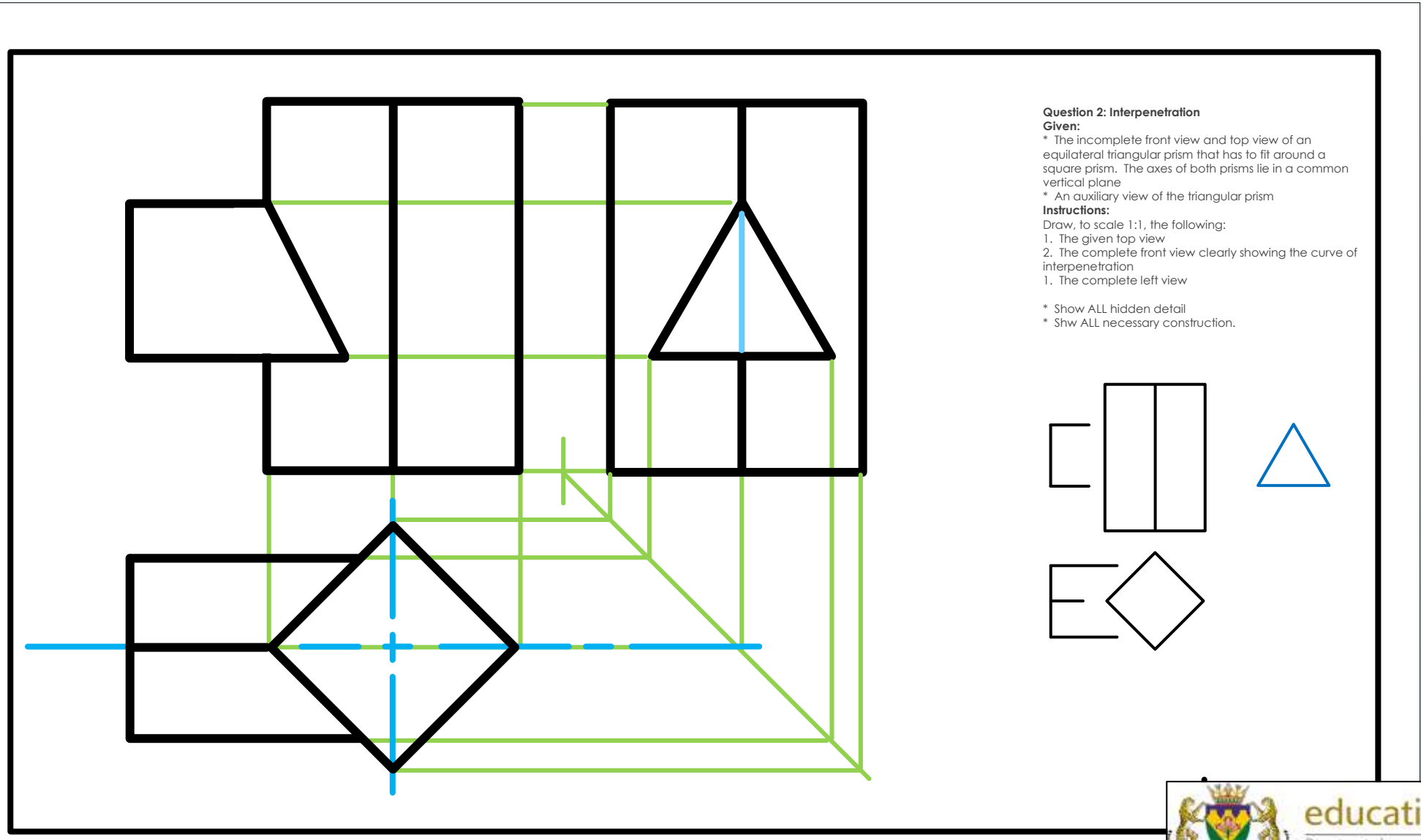
What is interpenetrations?





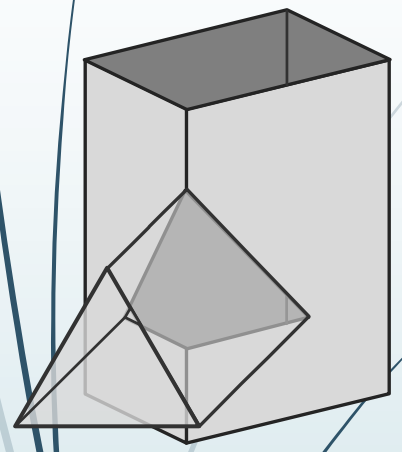
Question 2: Interpenetration
Given:
* The incomplete front view and top view of an equilateral triangular prism that has to fit around a square prism. The axes of both prisms lie in a common vertical plane
* An auxiliary view of the triangular prism

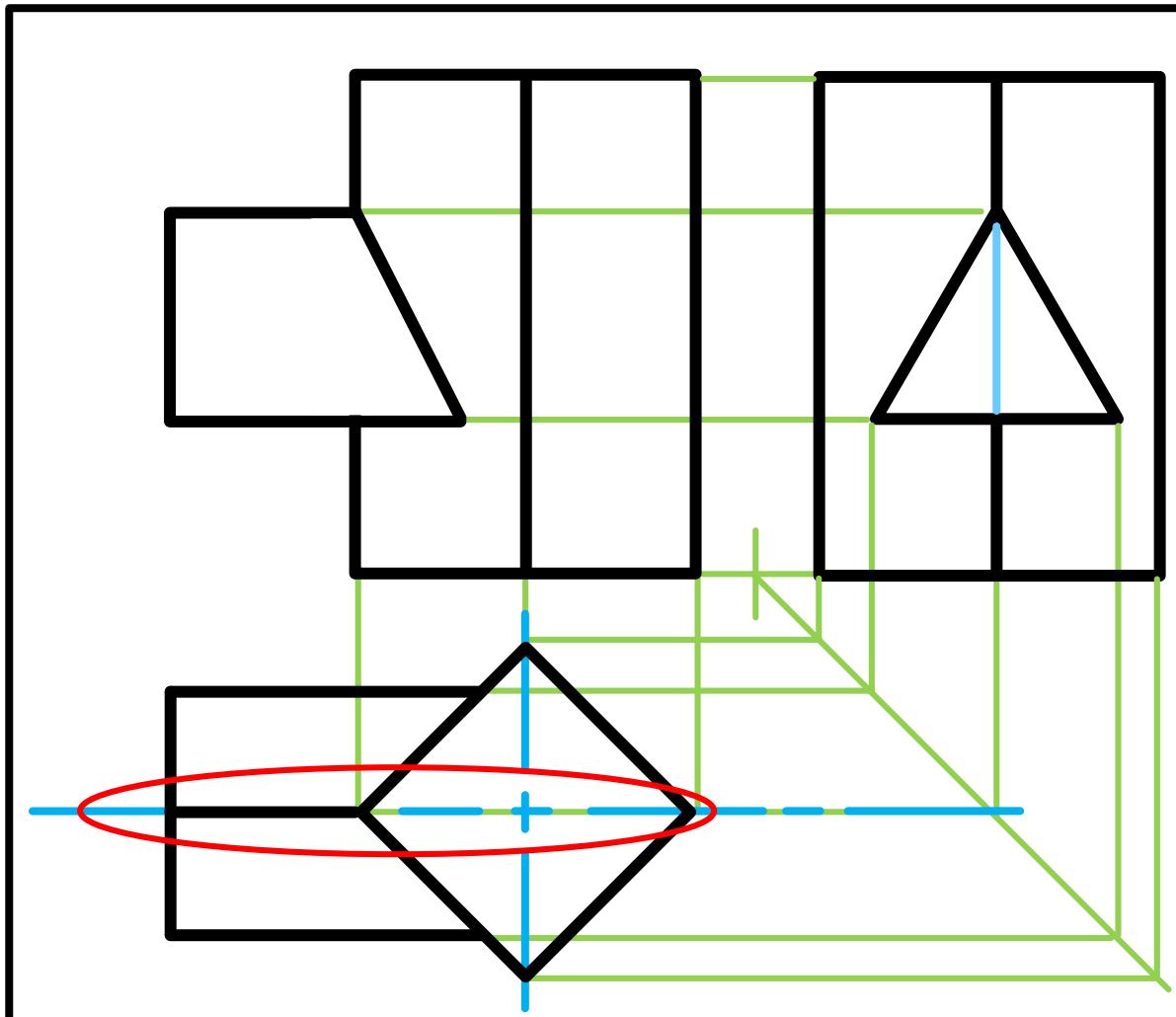
Instructions:
Draw, to scale 1:1, the following:
1. The given top view
2. The complete front view clearly showing the curve of interpenetration
1. The complete left view

* Show ALL hidden detail
* Shw ALL necessary construction.

What is interpenetrations?

Grade 11 content:
The curves of interpenetration have to be symmetrical.





Question 2: Interpenetration
Given:
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* An auxiliary view of the triangular prism

Instructions:
Draw, to scale 1:1, the following:
1. The given top view
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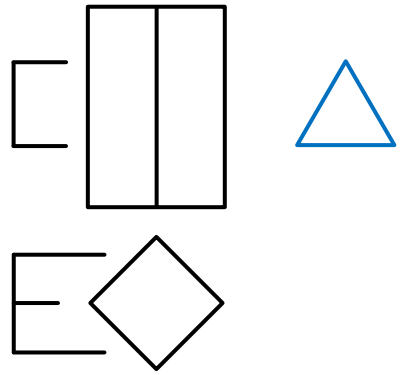
1. The complete left view

* Show ALL hidden detail
* Shw ALL necessary construction.



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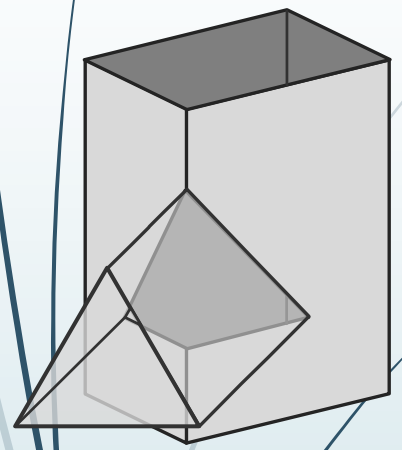
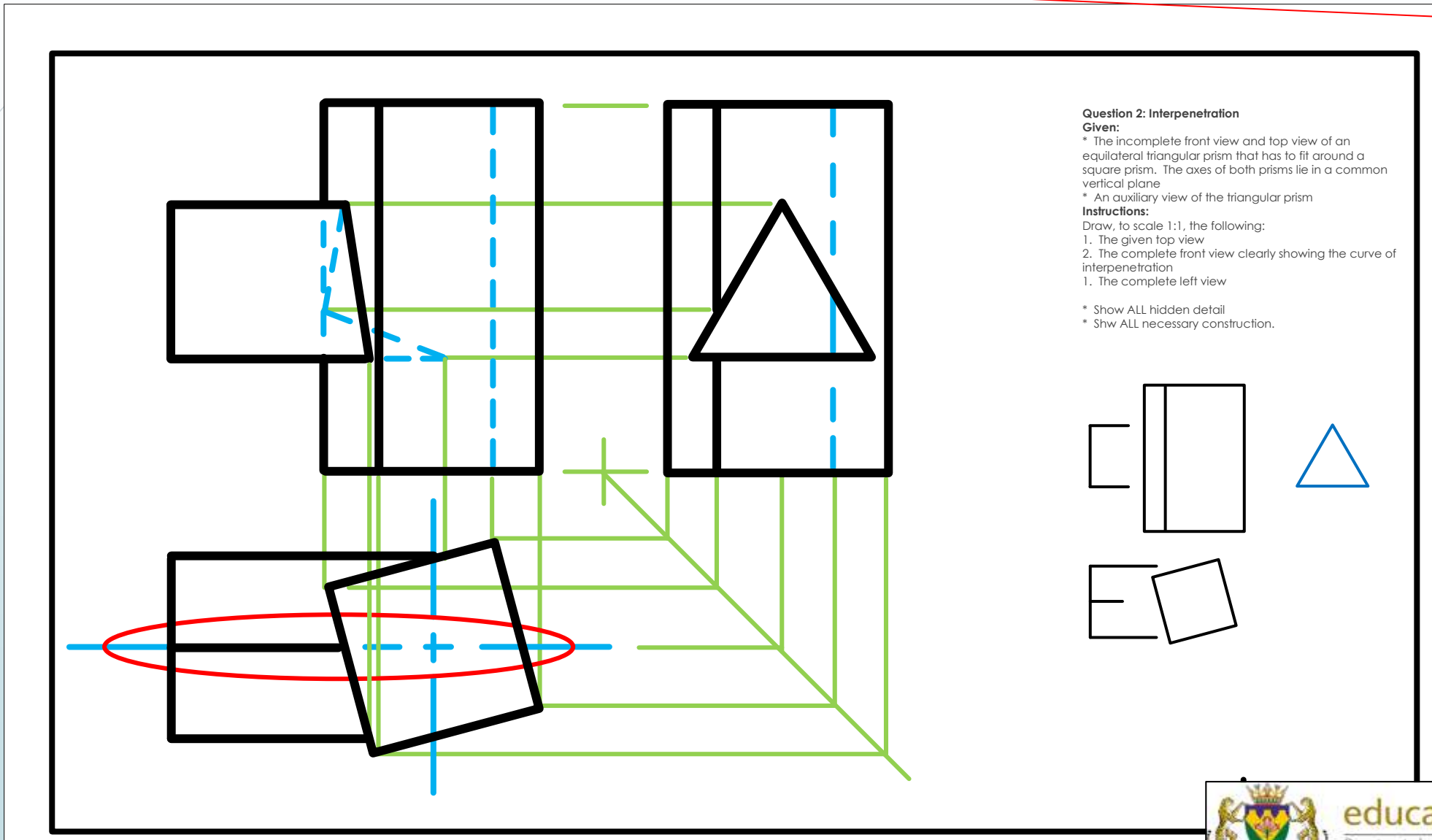
What is interpenetrations?

Grade 12 content:
The curves of interpenetration can be non-symmetrical.





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