

Interpenetrations

EGD Grade 11 & 12 (Revision)

Developed by: PC Viljoen

Senior Educational Specialist for
Engineering Graphics and Design

Free State Province

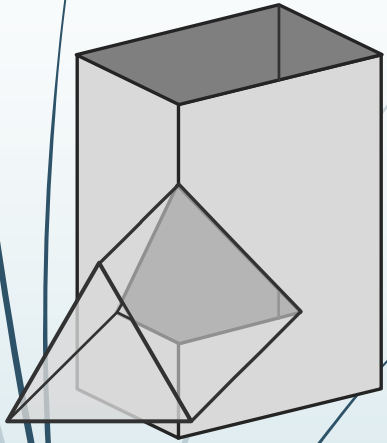


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Interpenetrations

Method 1: If branch is horizontal



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

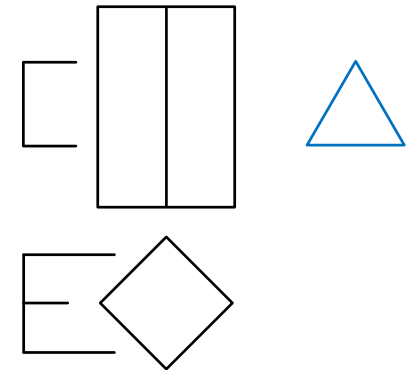
Instructions:

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

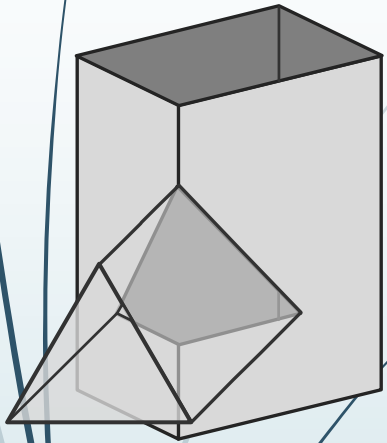
* Show ALL hidden detail

* Show ALL necessary construction.



Interpenetrations

Step 1



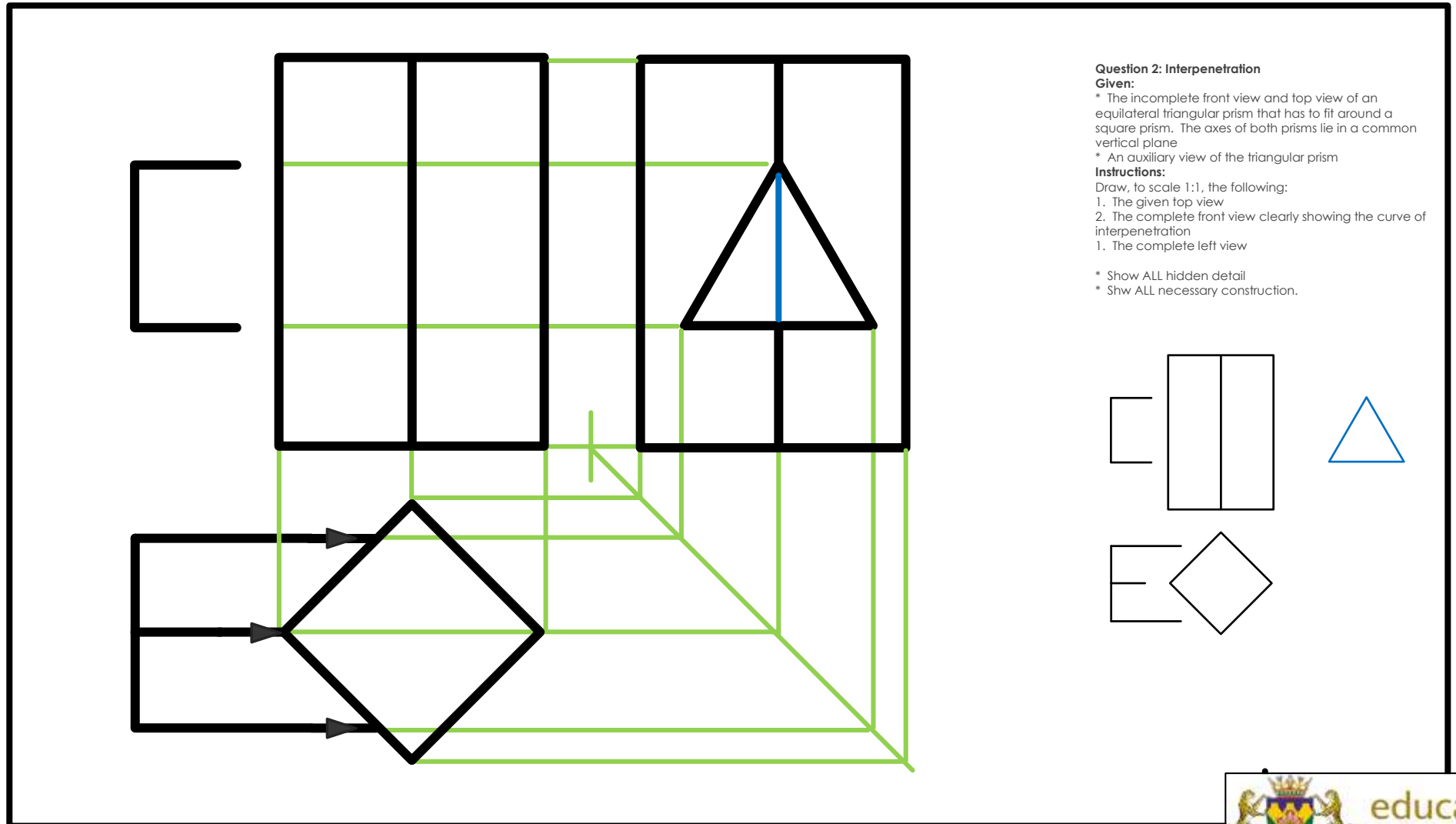
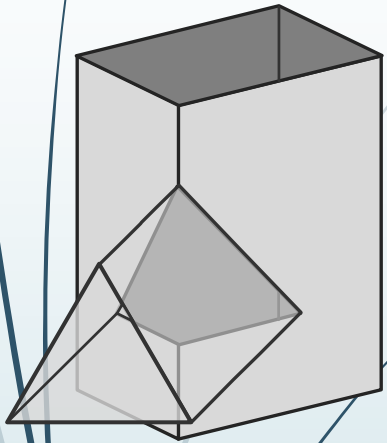
Question 2: Interpenetration
Given:
* The incomplete front view and top view of an equilateral triangular prism that has to fit around a square prism. The axes of both prisms lie in a common vertical plane
* An auxiliary view of the triangular prism
Instructions:
Draw, to scale 1:1, the following:
1. The given top view
2. The complete front view clearly showing the curve of interpenetration
1. The complete left view

* Show ALL hidden detail
* Show ALL necessary construction.



Interpenetrations

step 2



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

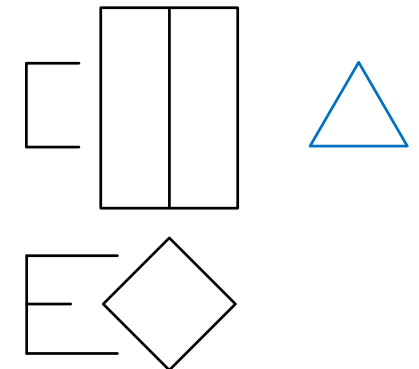
* An auxiliary view of the triangular prism

Instructions:

Draw, to scale 1:1, the following:

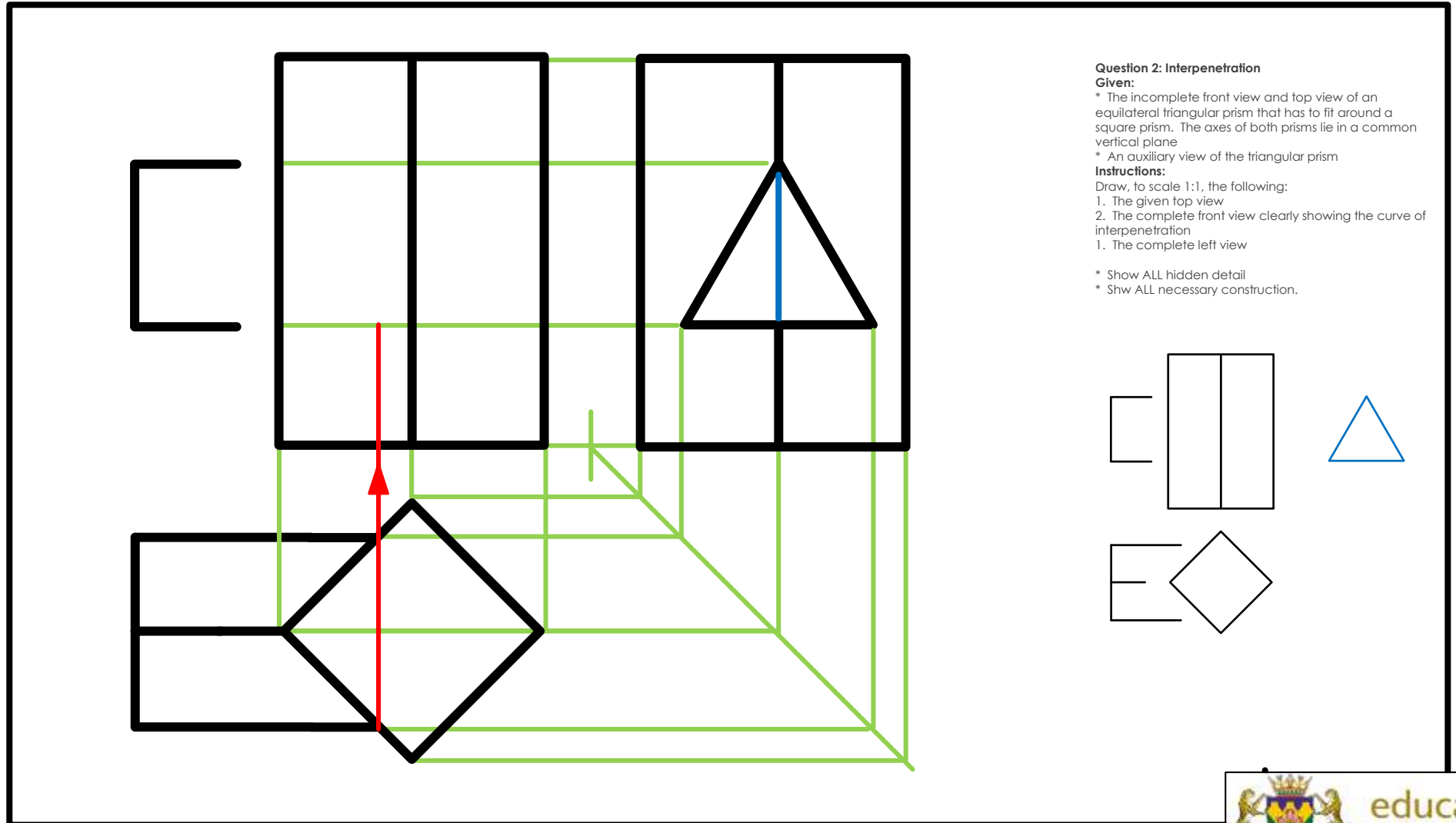
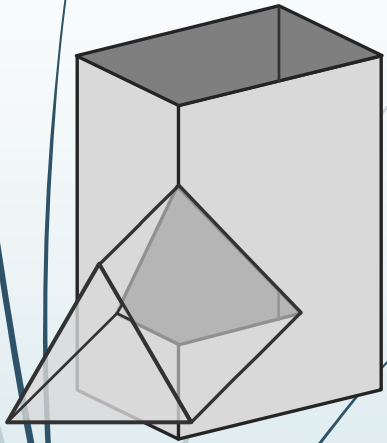
1. The given top view
2. The complete front view clearly showing the curve of interpenetration
1. The complete left view

- * Show ALL hidden detail
- * Show ALL necessary construction.



Interpenetrations

Step 3



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

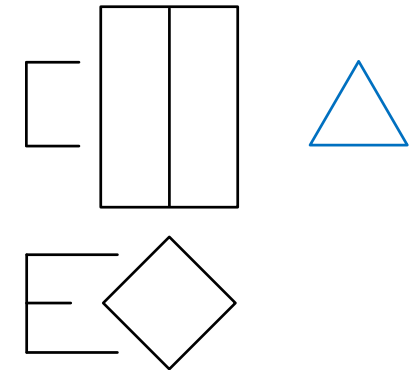
Instructions:

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

* Show ALL necessary construction.

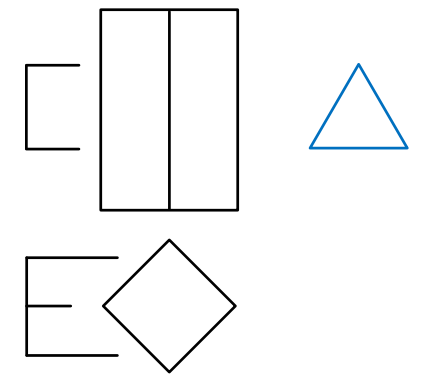
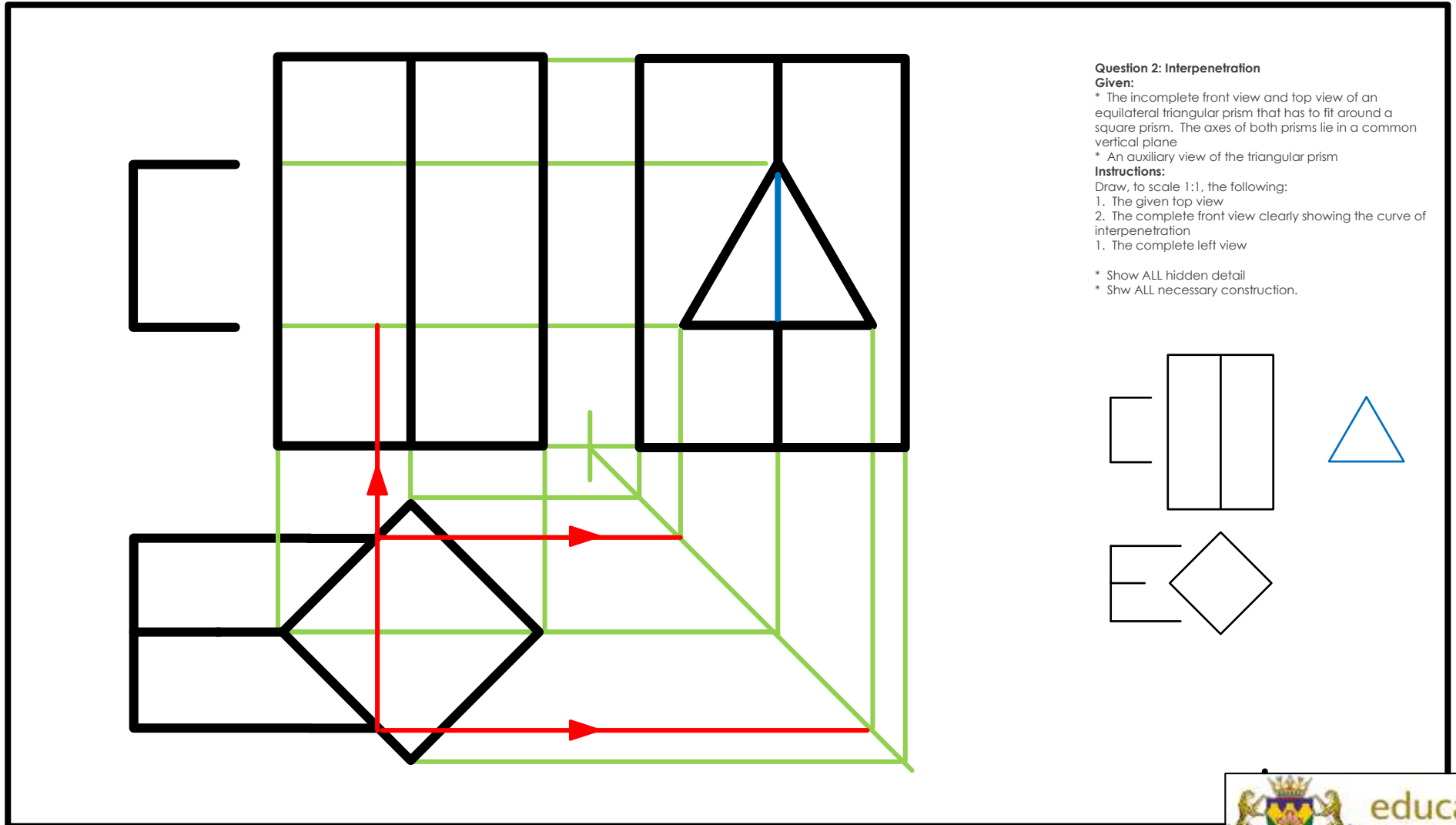
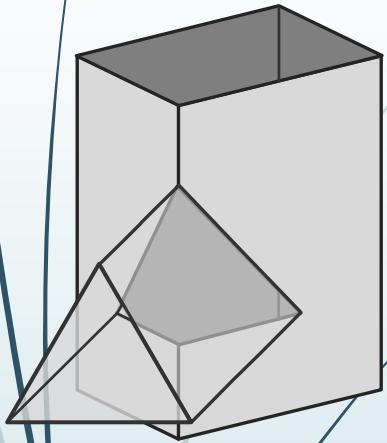


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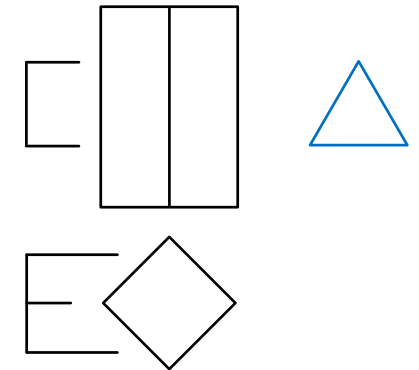
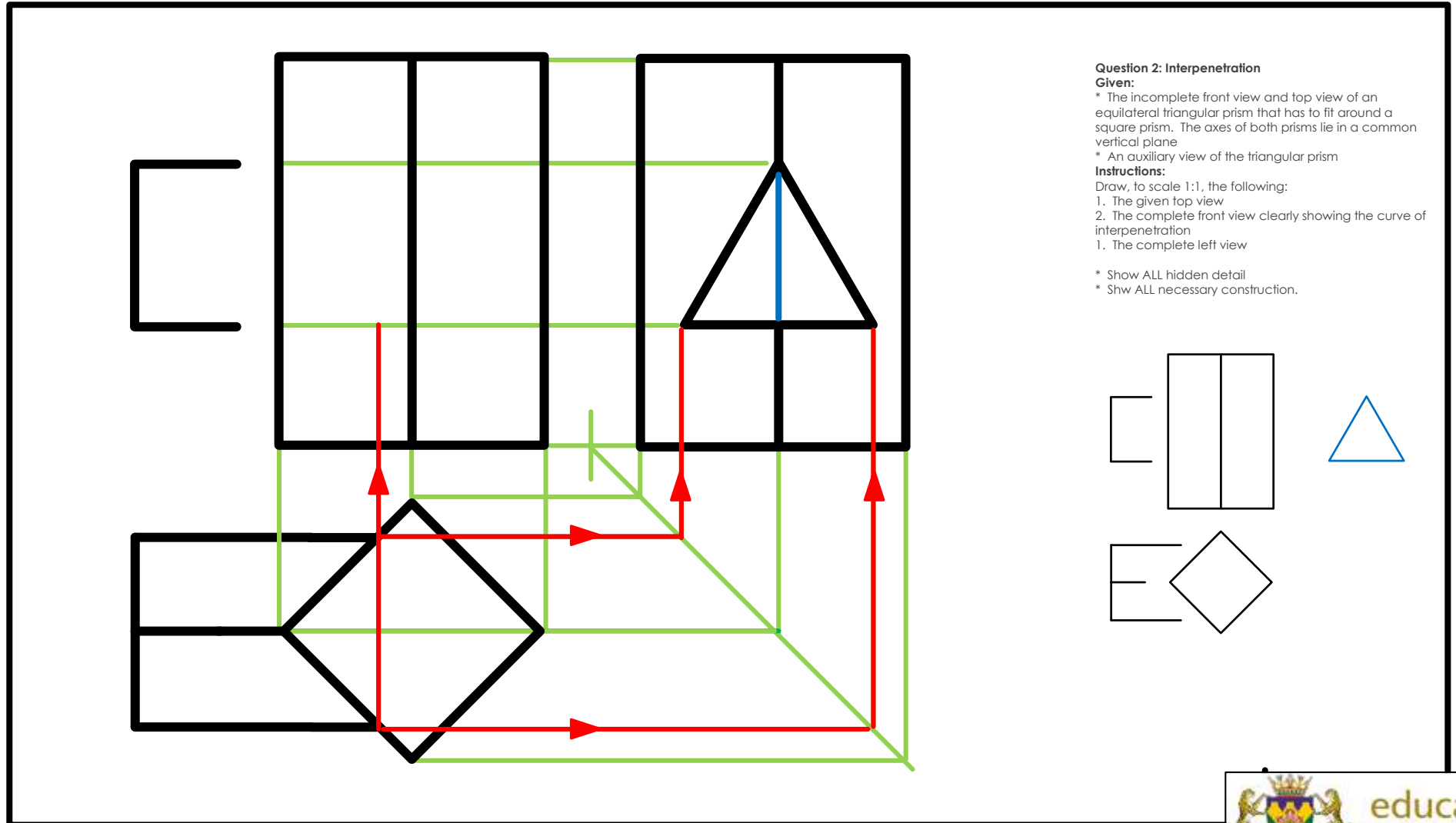
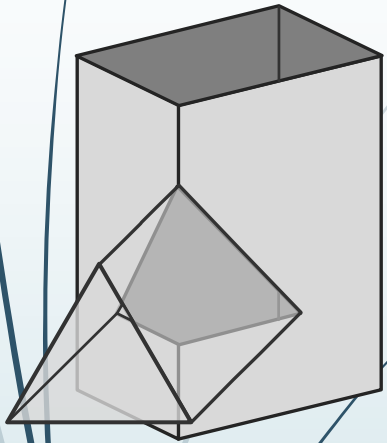
Interpenetrations

Step 4



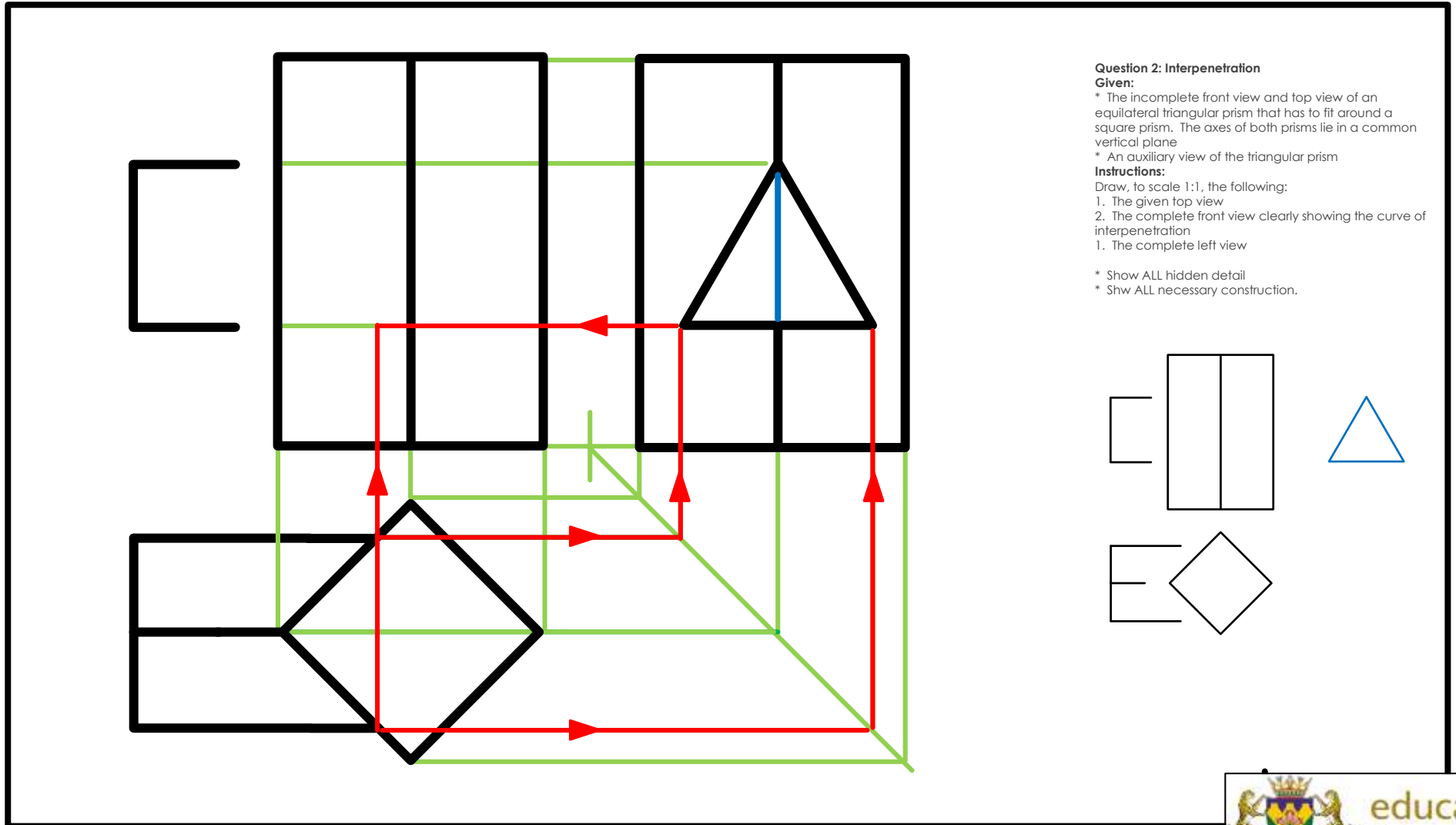
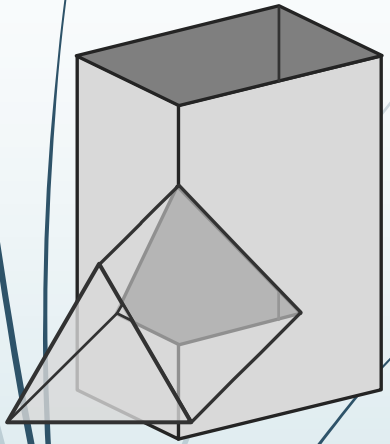
Interpenetrations

Step 5



Interpenetrations

Step 6



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

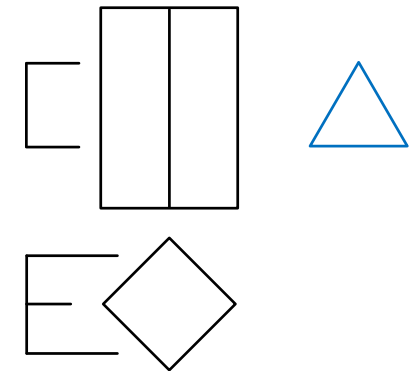
Instructions:

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

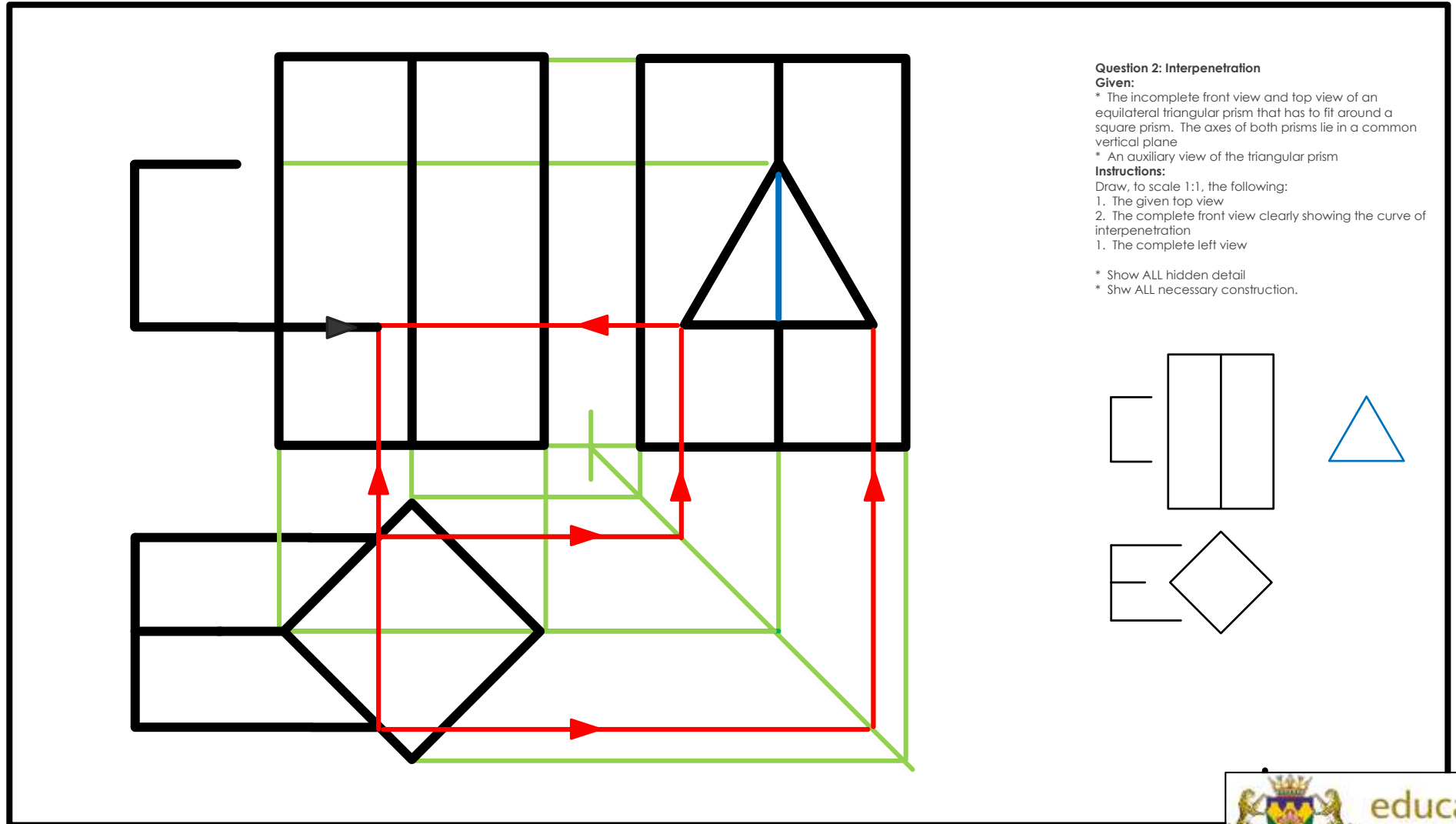
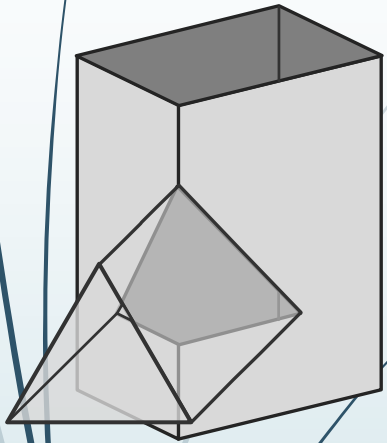
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* Show ALL necessary construction.



Interpenetrations

Step 7



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

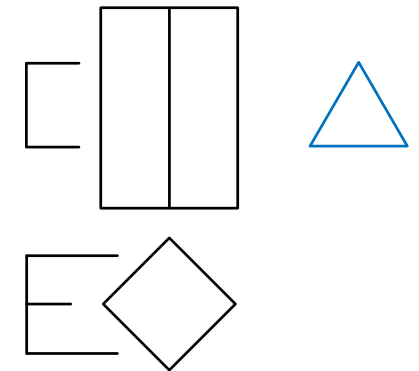
Instructions:

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

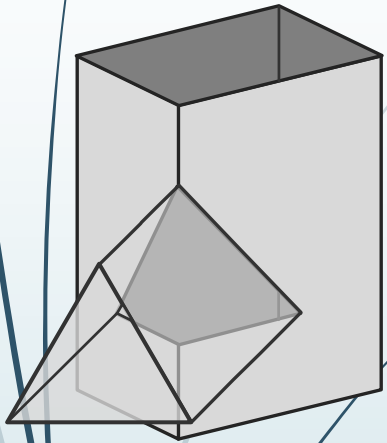
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Interpenetrations

Step 8



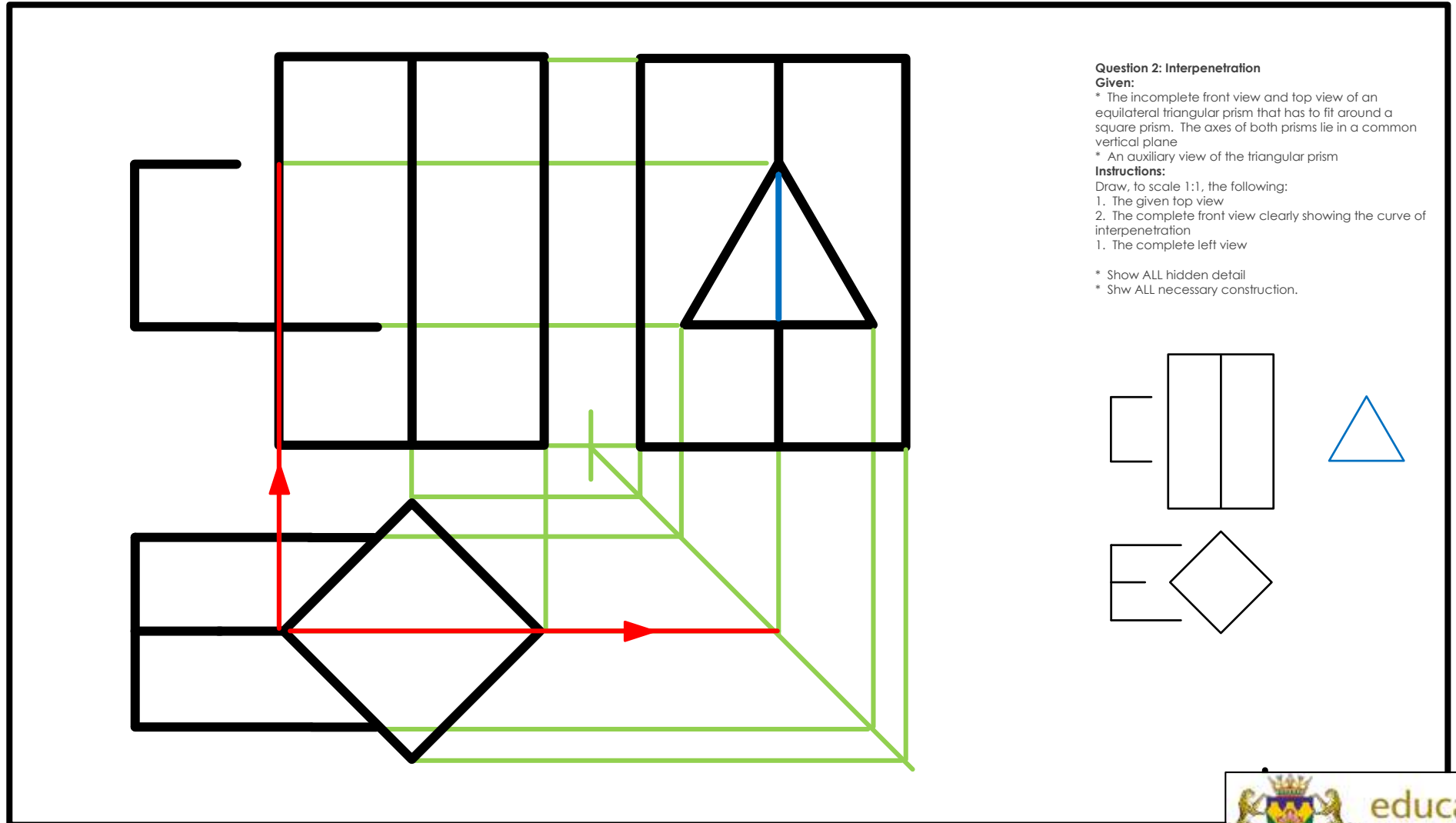
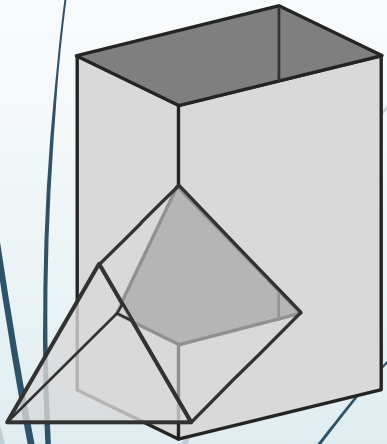
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Draw, to scale 1:1, the following:
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* Show ALL necessary construction.



Interpenetrations

Step 9



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

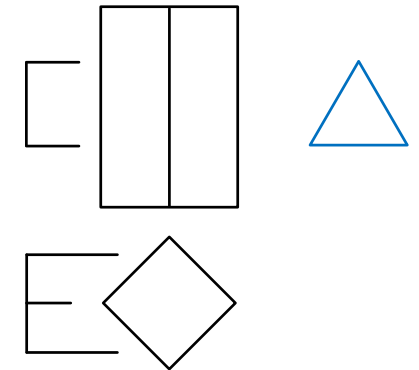
Instructions:

Draw, to scale 1:1, the following:

1. The given top view
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1. The complete left view

* Show ALL hidden detail

* Show ALL necessary construction.

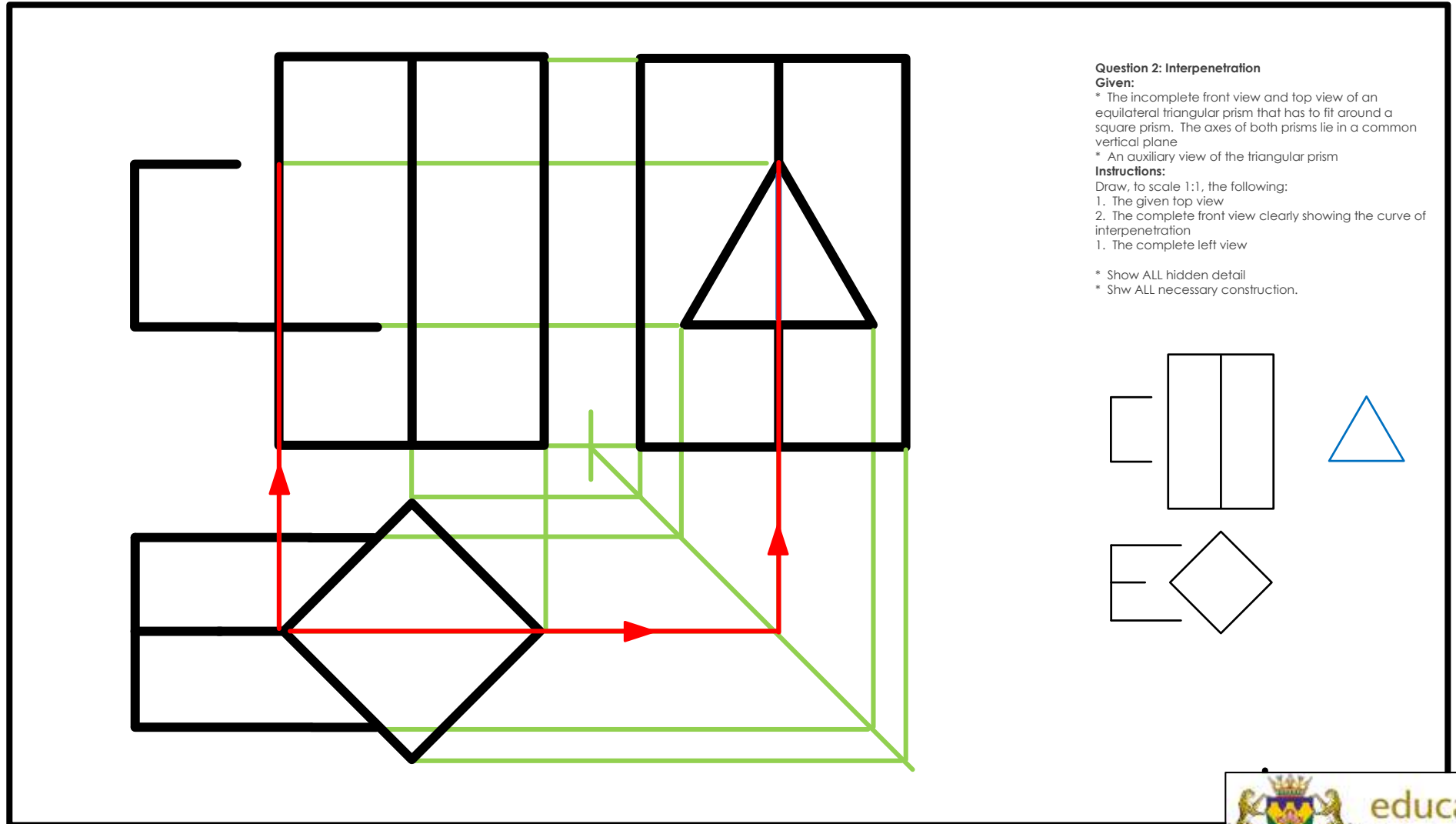
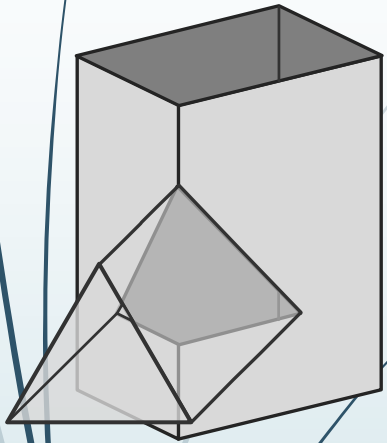


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Step 10



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

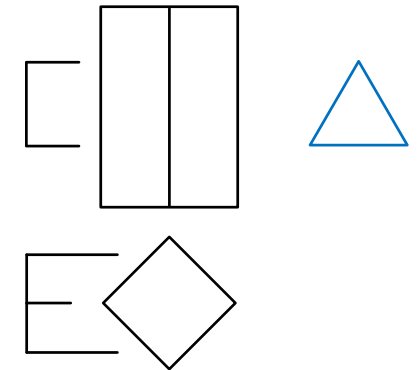
Instructions:

Draw, to scale 1:1, the following:

1. The given top view
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1. The complete left view

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* Show ALL necessary construction.

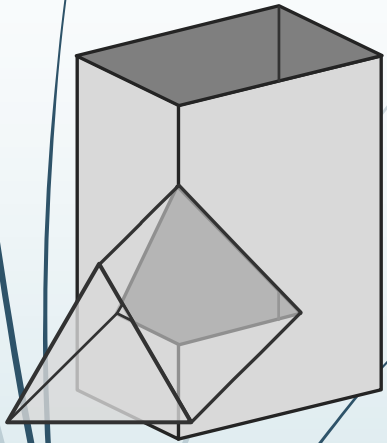


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Step 11



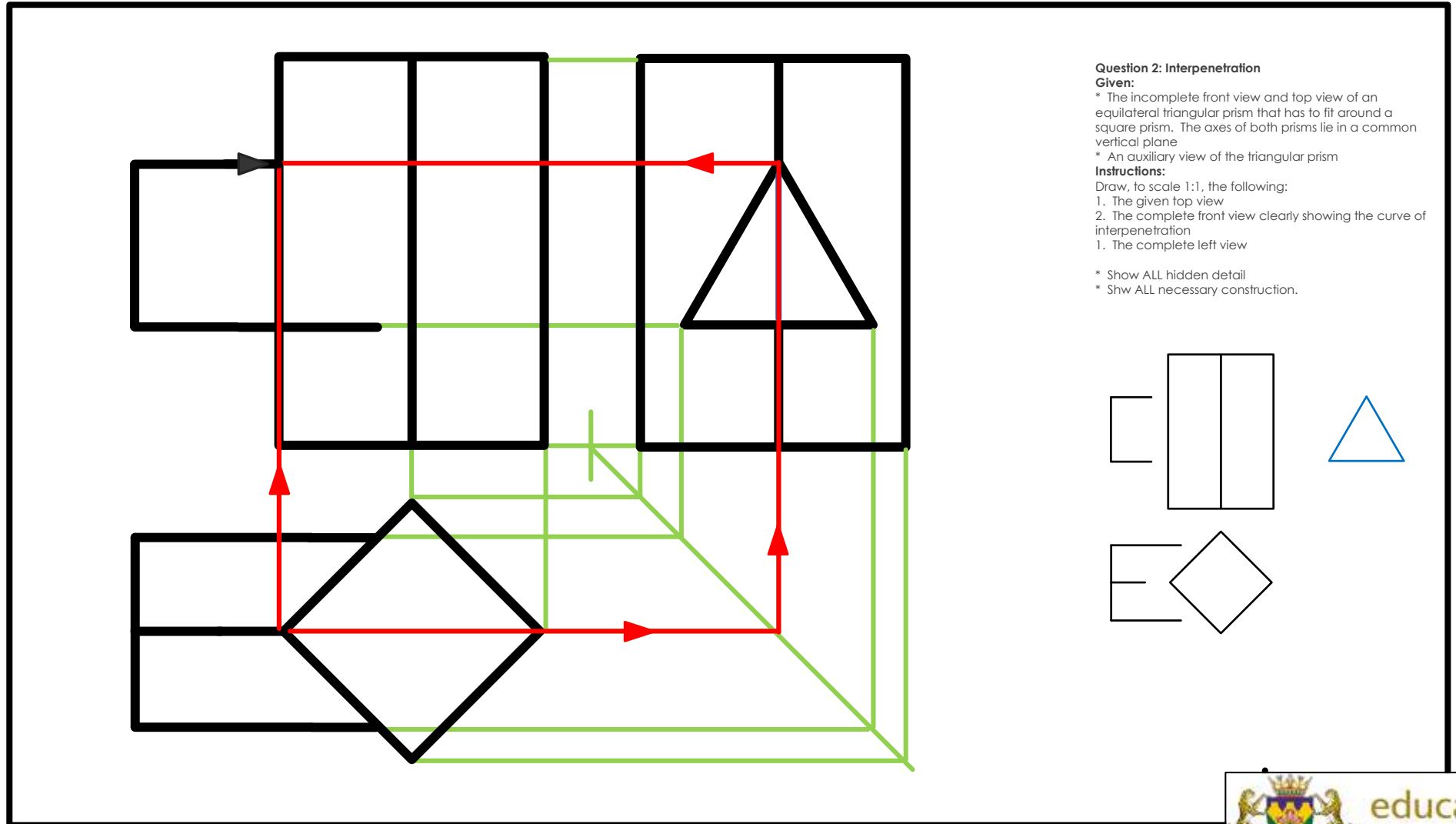
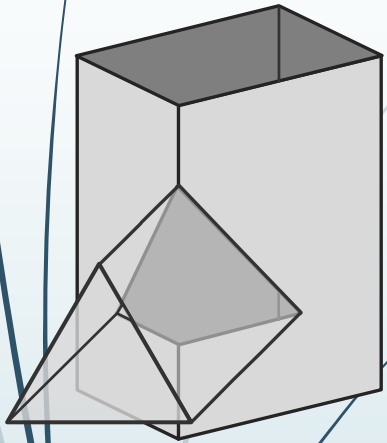
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* An auxiliary view of the triangular prism
Instructions:
Draw, to scale 1:1, the following:
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1. The complete left view

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* Show ALL necessary construction.



Interpenetrations

Step 12



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

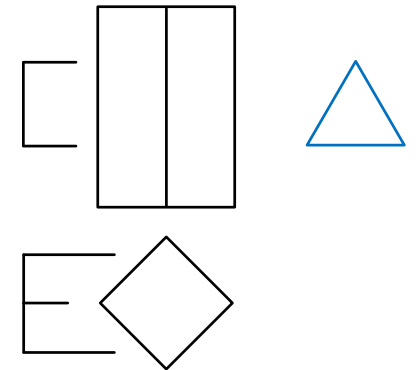
Instructions:

Draw, to scale 1:1, the following:

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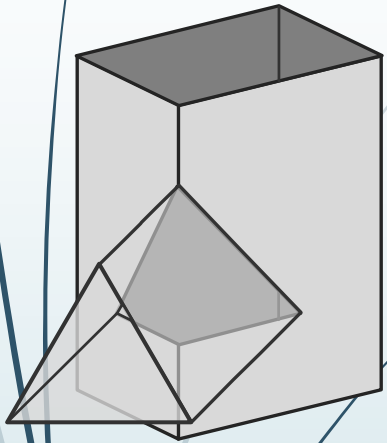


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Step 13



Question 2: Interpenetration
Given:
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Instructions:
Draw, to scale 1:1, the following:
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