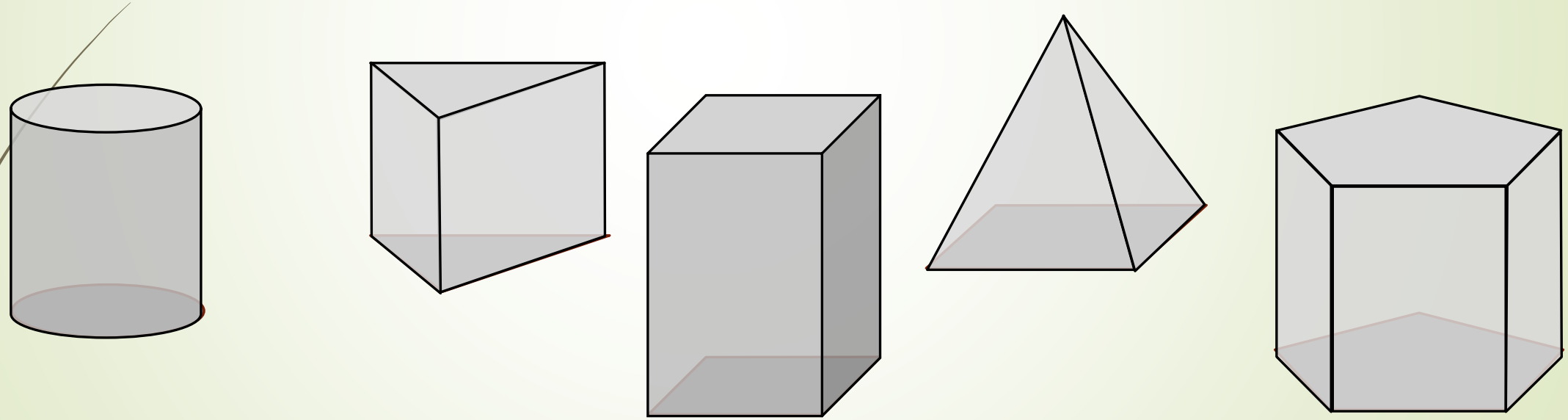
Surface developments
Cylinders and Cones
Grade 12

Developed by: PC Viljoen
Senior Educational Specialist for
Engineering Graphics and Design
Free State Province

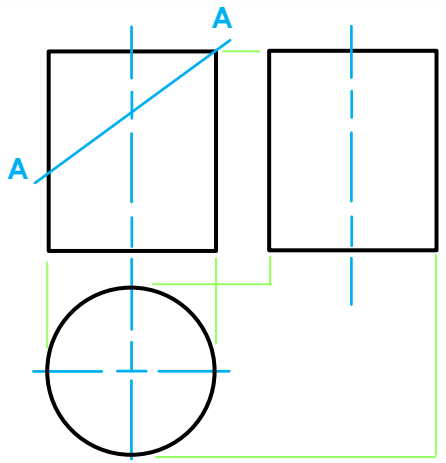
education
Department of Education
FREE STATE PROVINCE

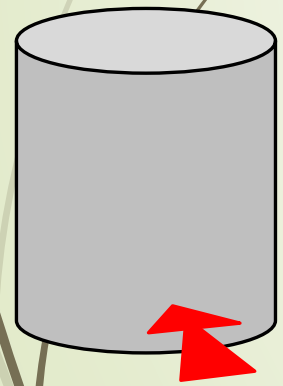
Application on polygons

- Projecting right regular pyramids, prisms, cones and cylinders from polygons.

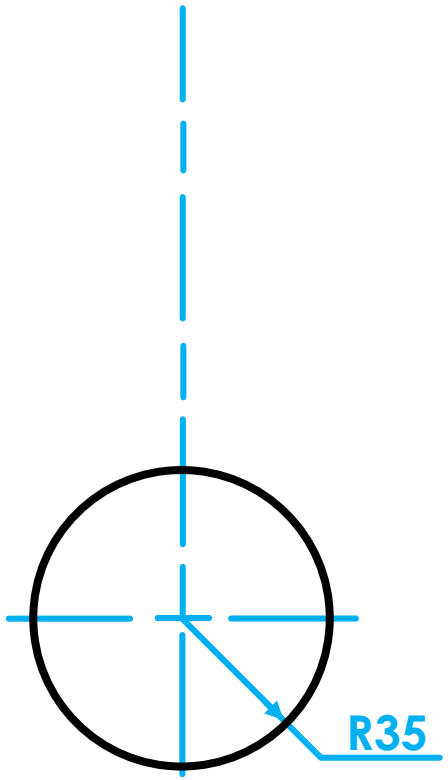


Application on polygons



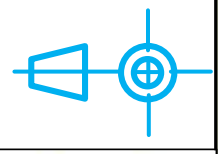


FRONT VIEW



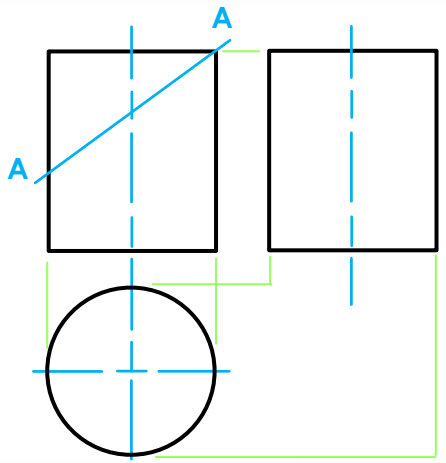
Circumference of the circle:

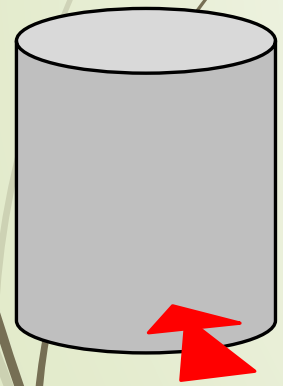
Given:
A cylinder with a radius of R 35.
Question:
In F.A.O.P. draw…
1. A front view
2. A left view
3. A sectioned **top view**
4. Develop the surface of the solid



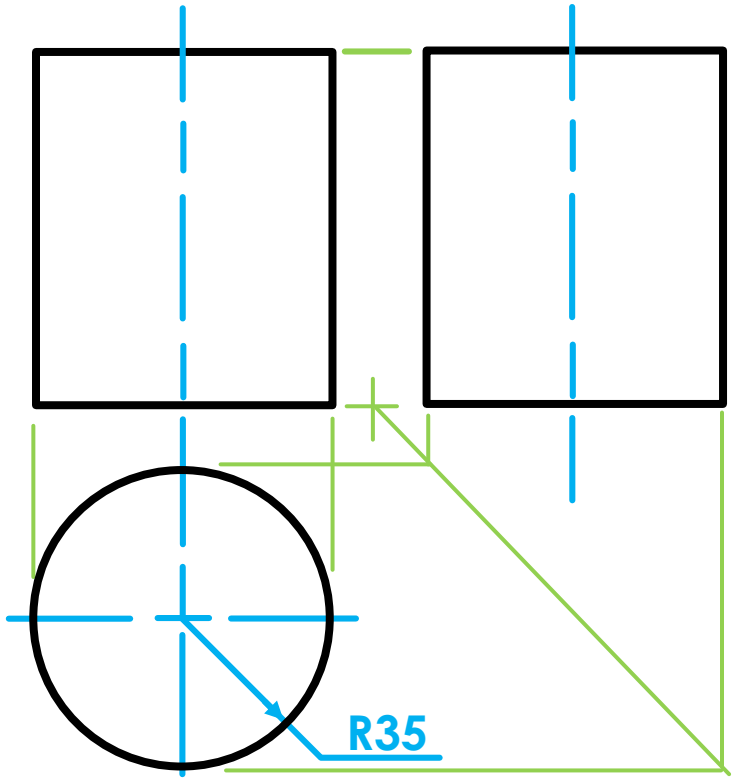
education
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW

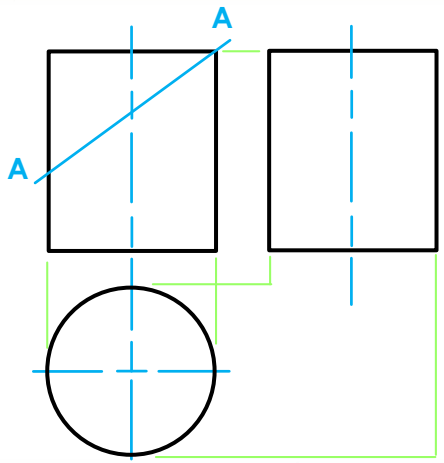


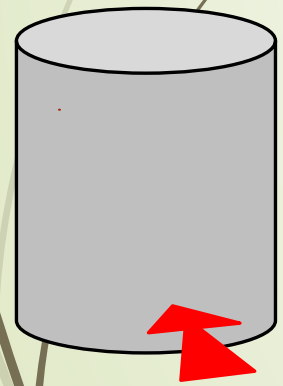
Circumference of the circle:

Given:
A cylinder with a radius of R 35.
Question:
In F.A.O.P. draw…
1. **A front view**
2. **A left view**
3. A sectioned top view
4. Develop the surface of the solid

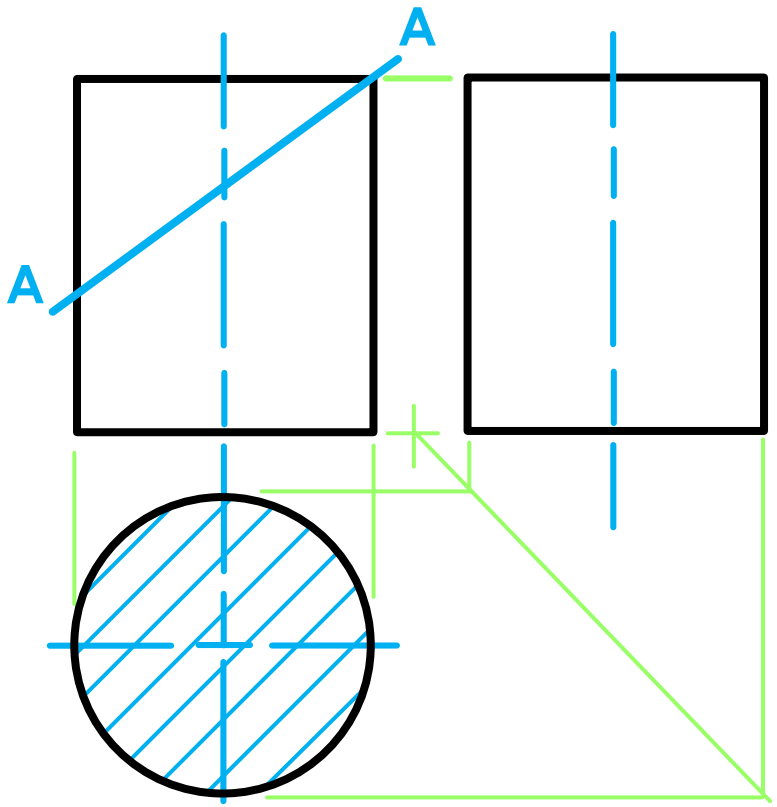
education
Department of Education
FREE STATE PROVINCE

Application on polygons



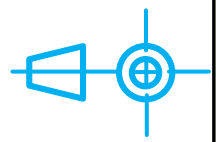


FRONT VIEW

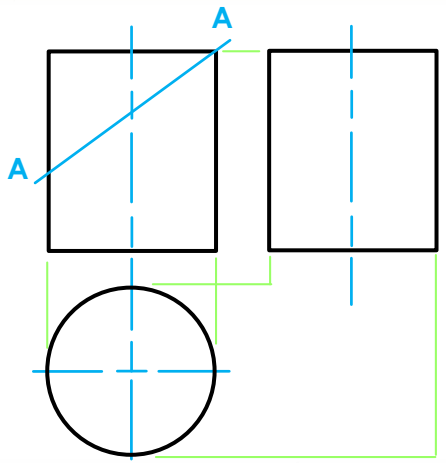


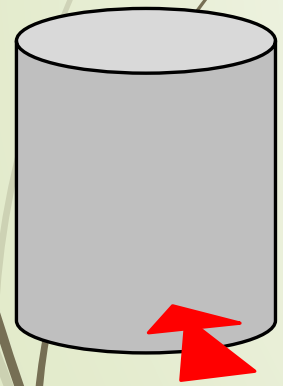
Circumference of the circle:

Given:
A cylinder with a radius of R 35.
Question:
In F.A.O.P. draw…
1. A front view
2. A left view
3. **A sectioned top view**
4. Develop the surface of the solid

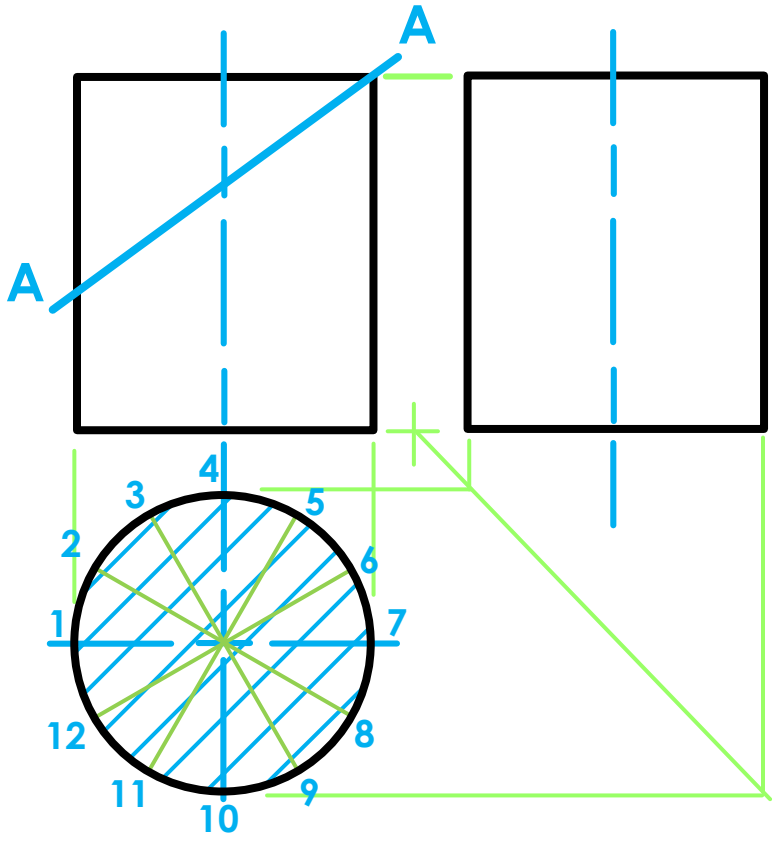


Application on polygons





FRONT VIEW

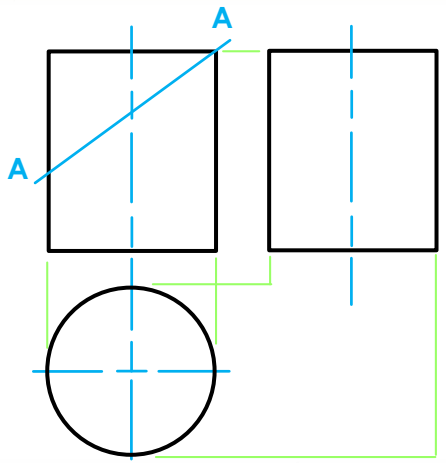


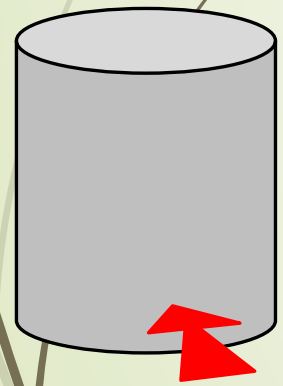
Circumference of the circle:

Given:
A cylinder with a radius of R 35.
Question:
In F.A.O.P. draw…
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

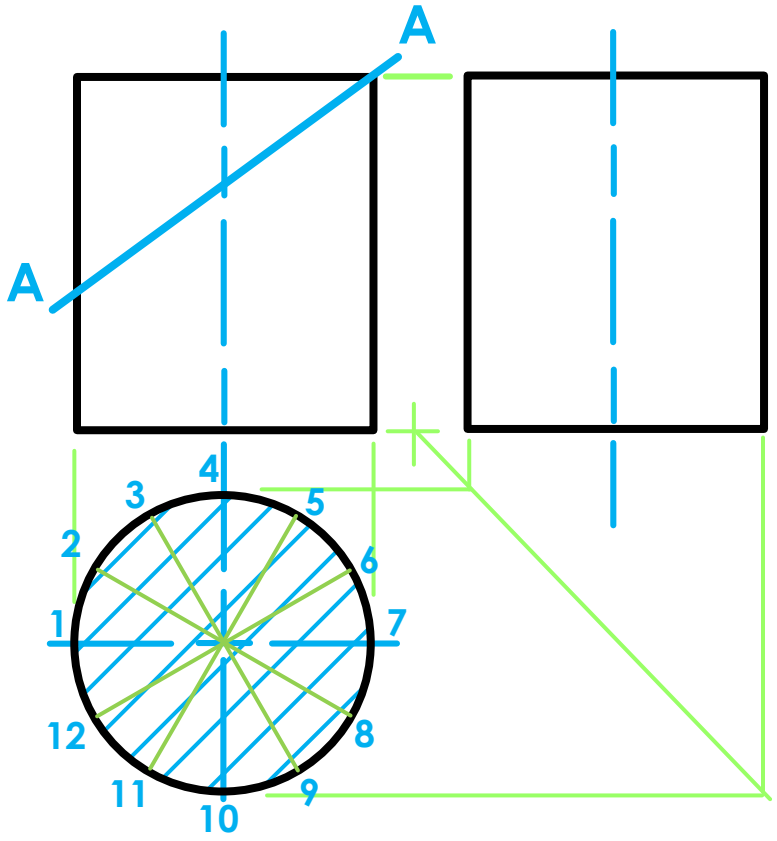
education
Department of Education
FREE STATE PROVINCE

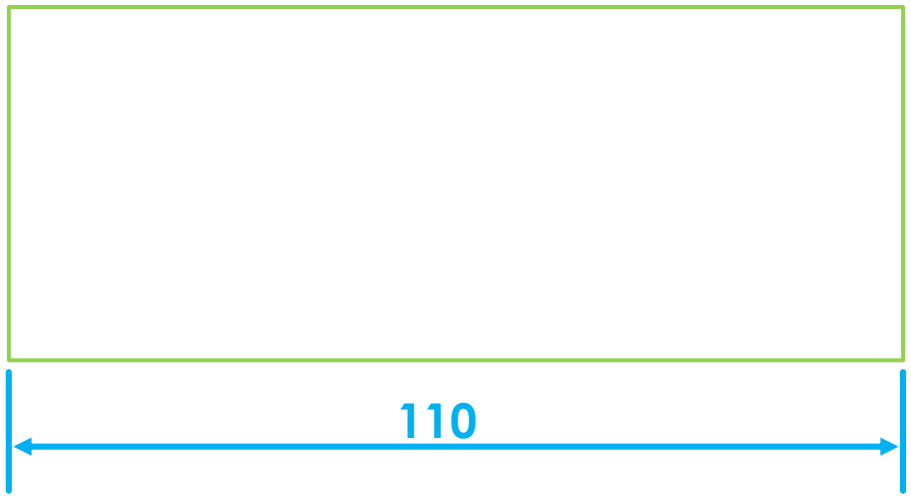
Application on polygons





FRONT VIEW





Circumference of the circle:

= 2∏r

= 2 x 3,141592654 x 35

= 109,95

= 110

Given:

A cylinder with a radius of R 35.

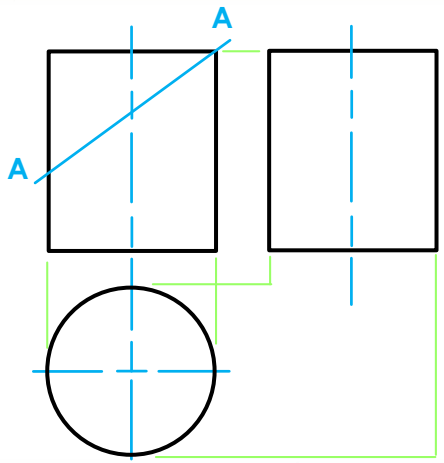
Question:

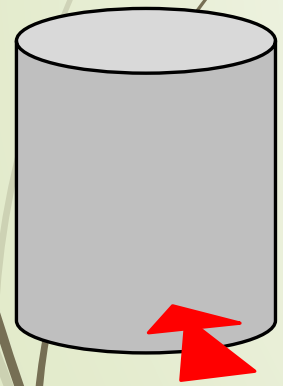
In F.A.O.P. draw…

1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

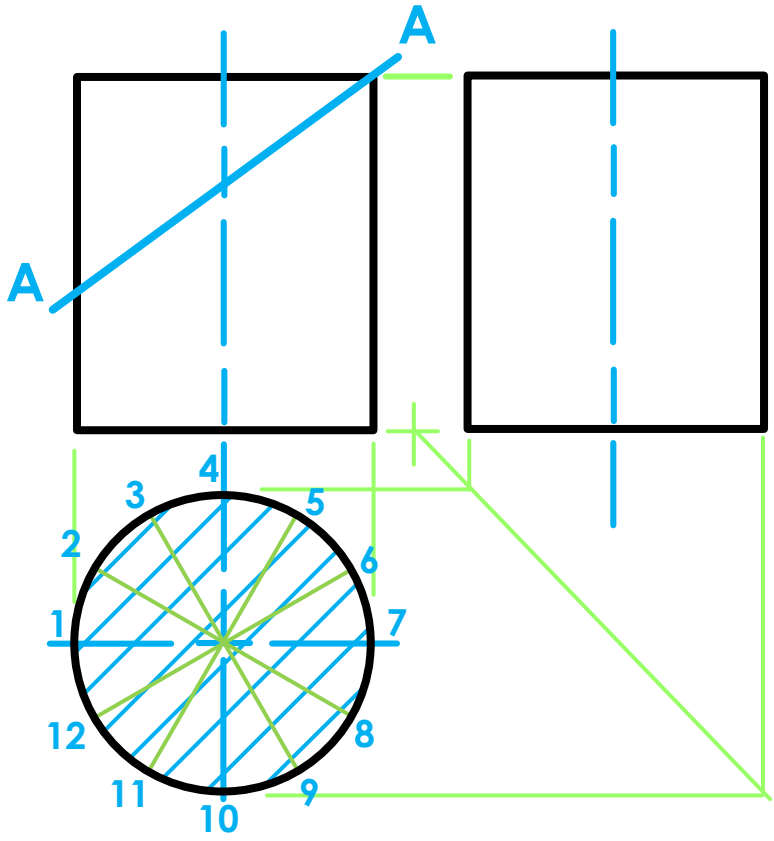
education
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



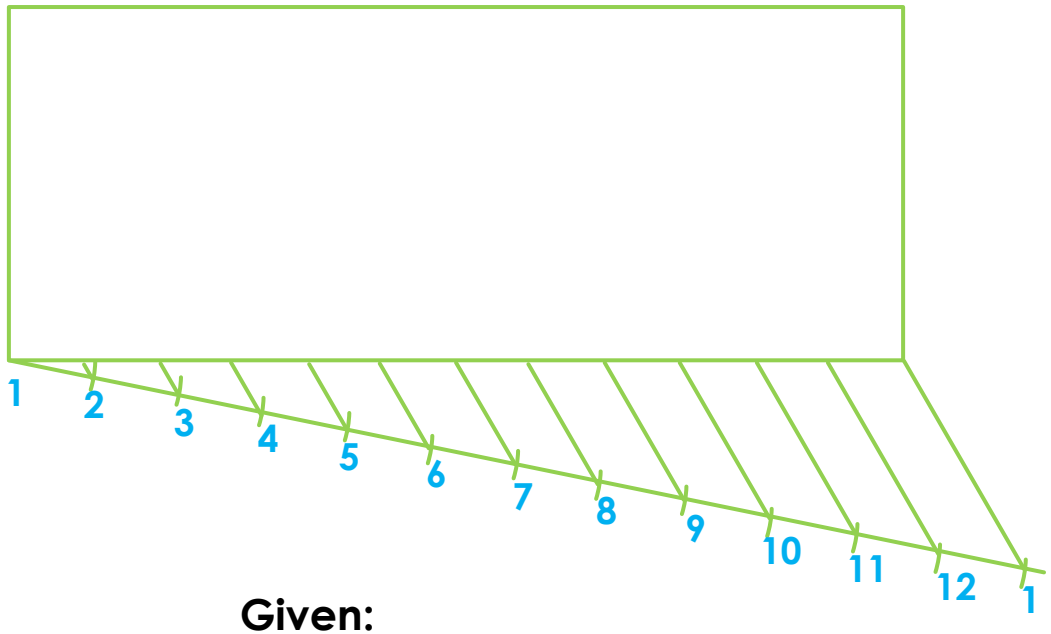
Circumference of the circle:

= 2∏r

= 2 x 3,141592654 x 35

= 109,95

= 110



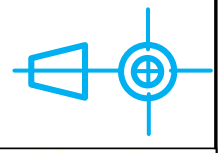
Given:

A cylinder with a radius of R 35.

Question:

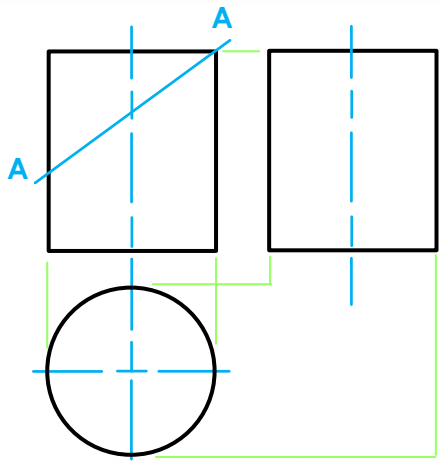
In F.A.O.P. draw…

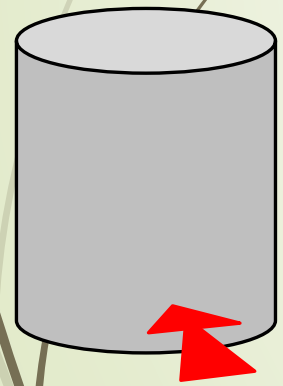
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**



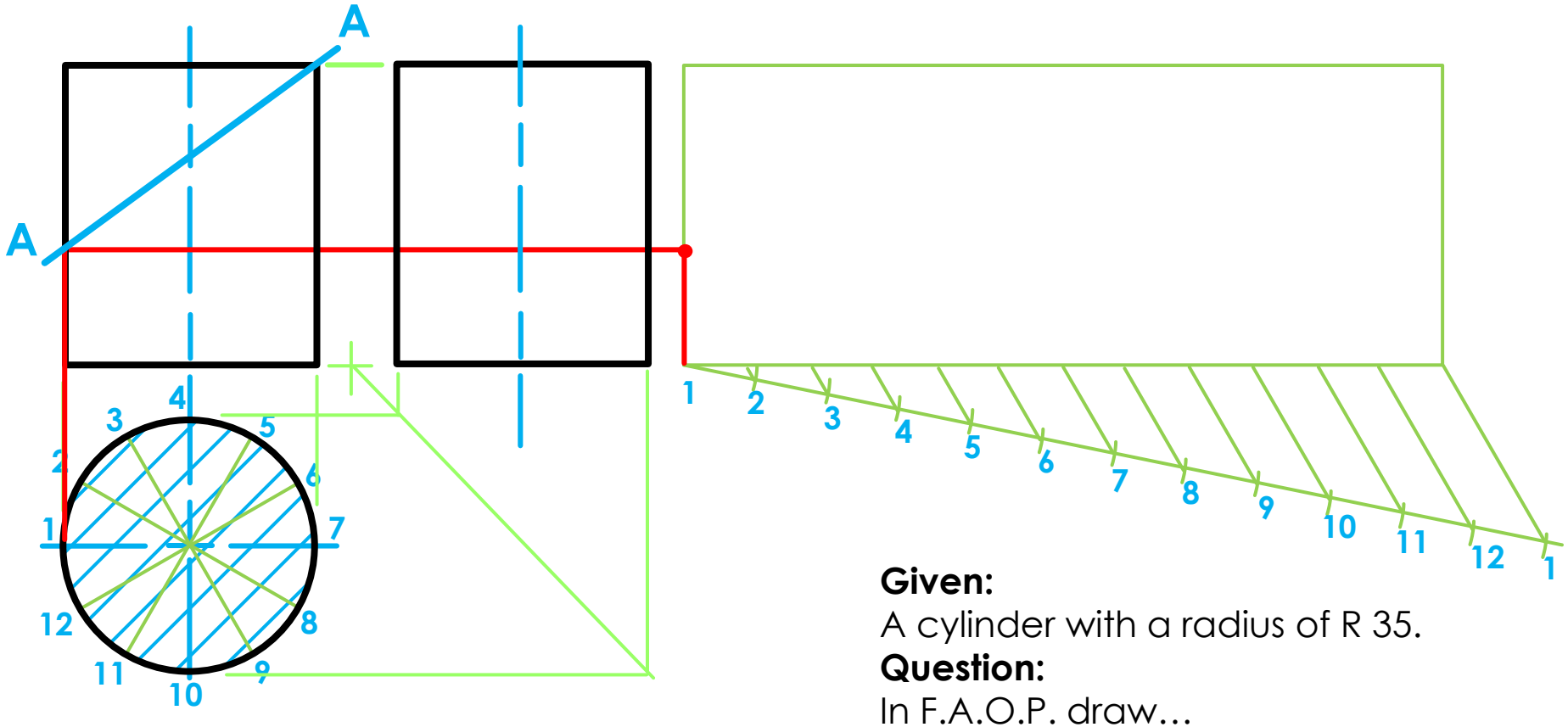
education
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



Circumference of the circle:

= 2∏r

= 2 x 3,141592654 x 35

= 109,95

= 110

Given:

A cylinder with a radius of R 35.

Question:

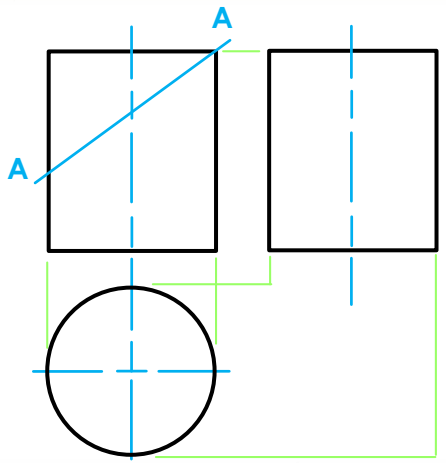
In F.A.O.P. draw…

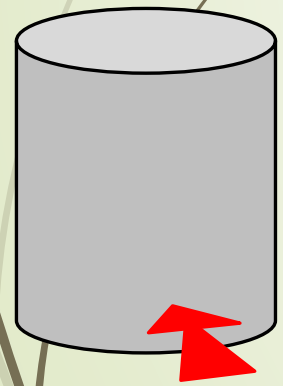
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

education

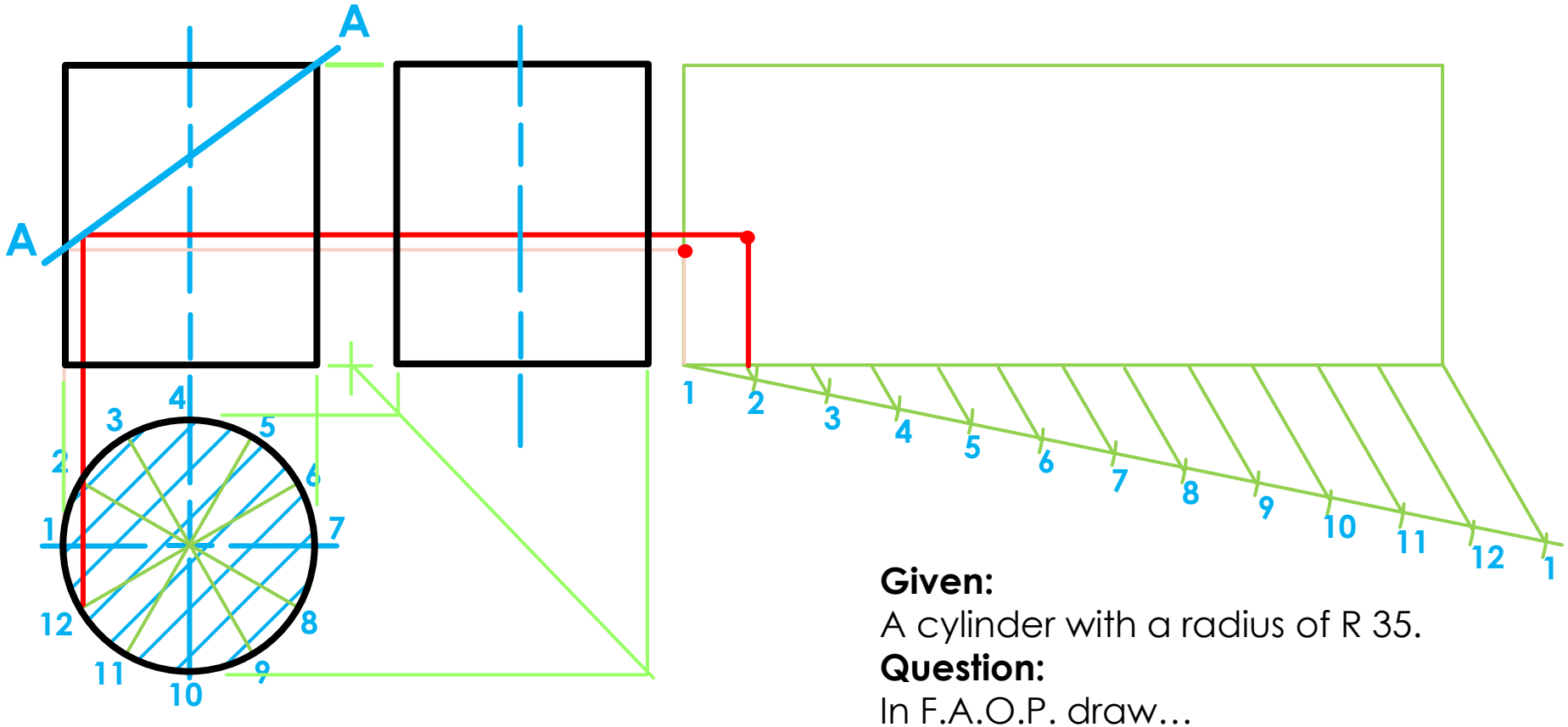
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



Circumference of the circle:

= 2∏r

= 2 x 3,141592654 x 35

= 109,95

= 110

Given:

A cylinder with a radius of R 35.

Question:

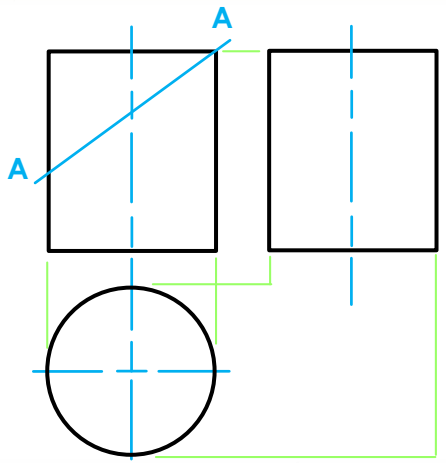
In F.A.O.P. draw…

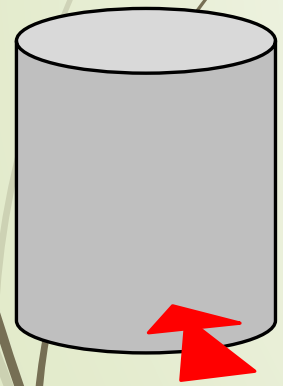
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

education

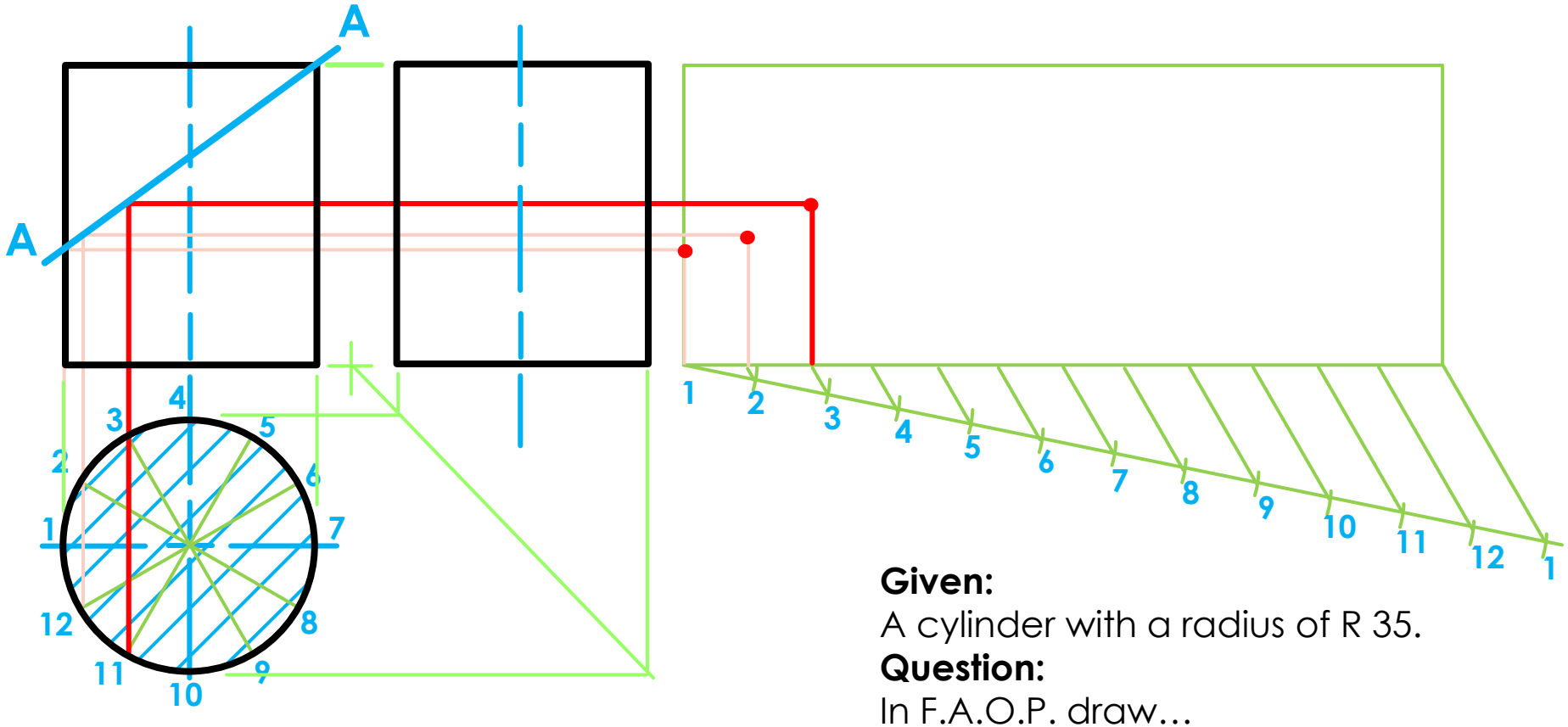
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



Circumference of the circle:

= 2∏r

= 2 x 3,141592654 x 35

= 109,95

= 110

Given:

A cylinder with a radius of R 35.

Question:

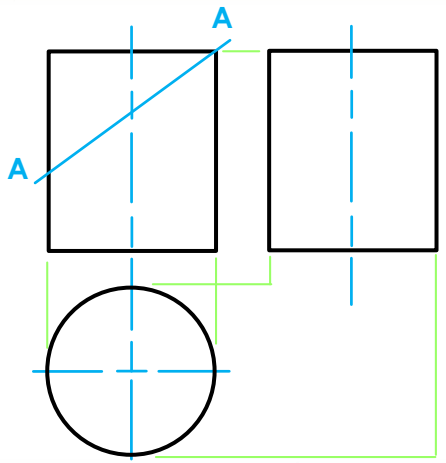
In F.A.O.P. draw…

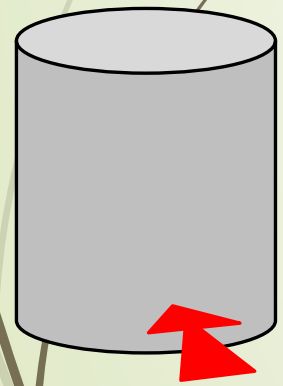
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

education

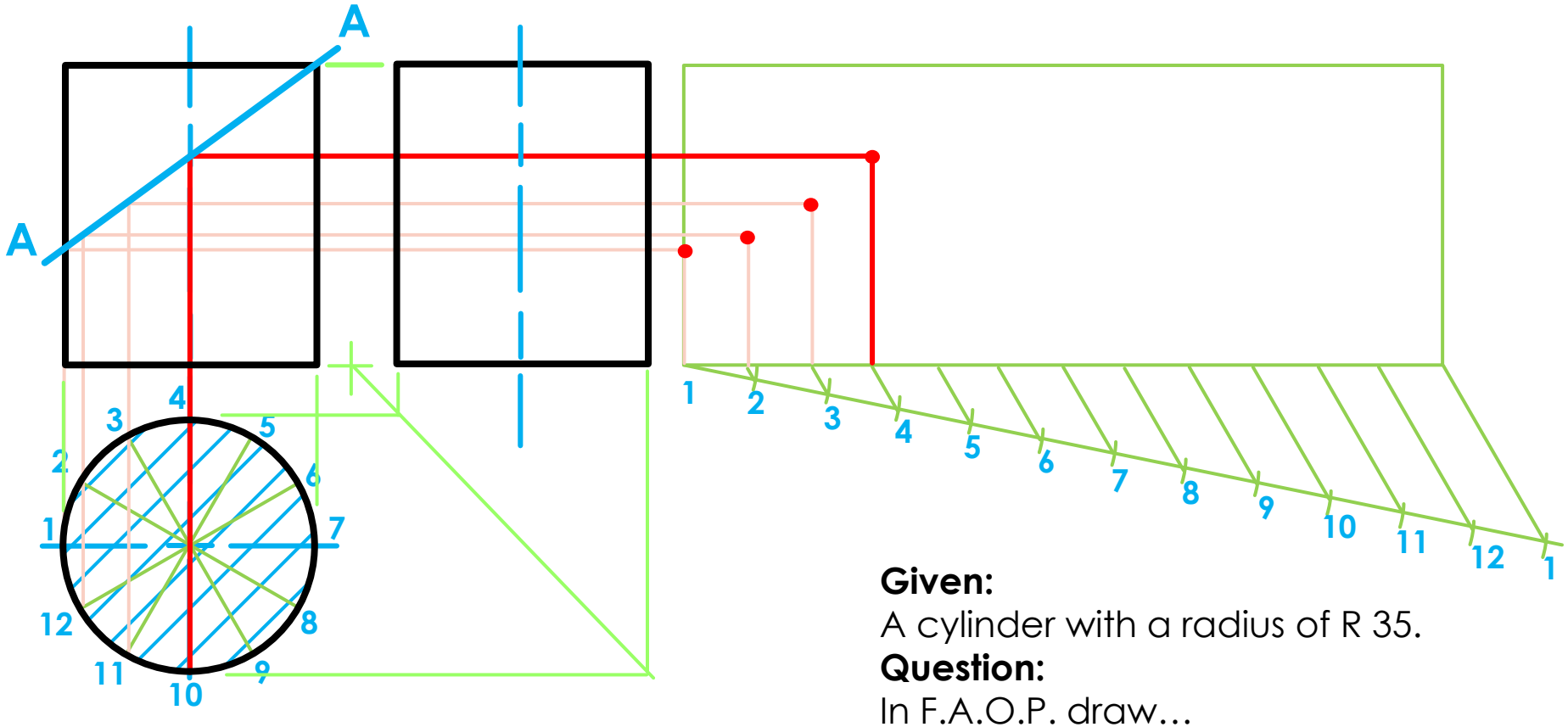
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



Given:
A cylinder with a radius of R 35.

Question:
In F.A.O.P. draw…

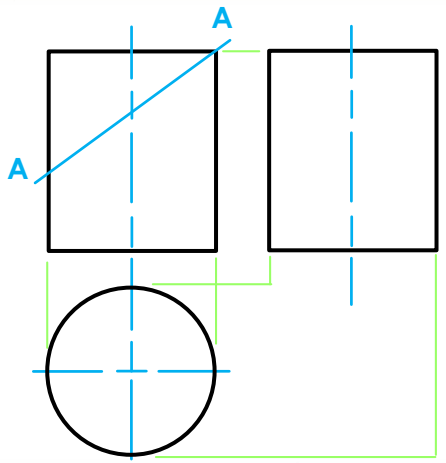
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

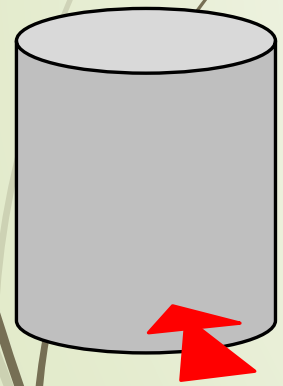
Circumference of the circle:

= 2∏r
= 2 x 3,141592654 x 35
= 109,95
= 110

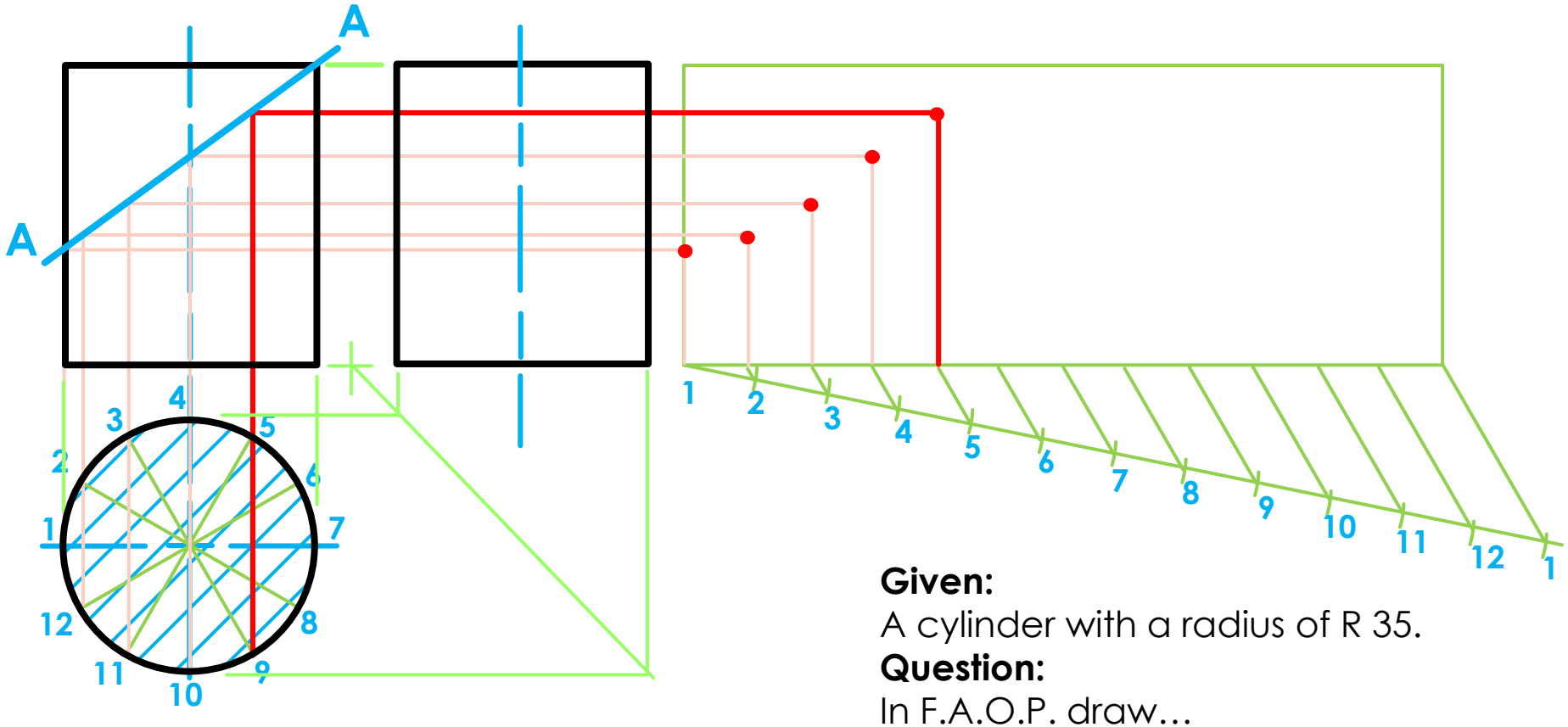
education
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



Given:
A cylinder with a radius of R 35.

Question:
In F.A.O.P. draw…

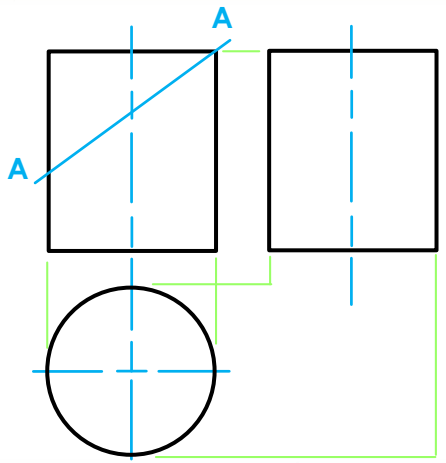
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

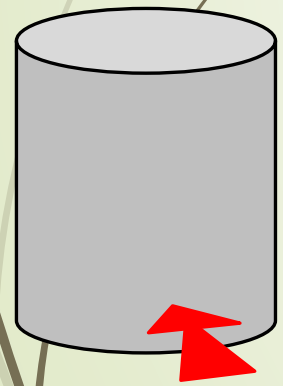
Circumference of the circle:

= 2∏r
= 2 x 3,141592654 x 35
= 109,95
= 110

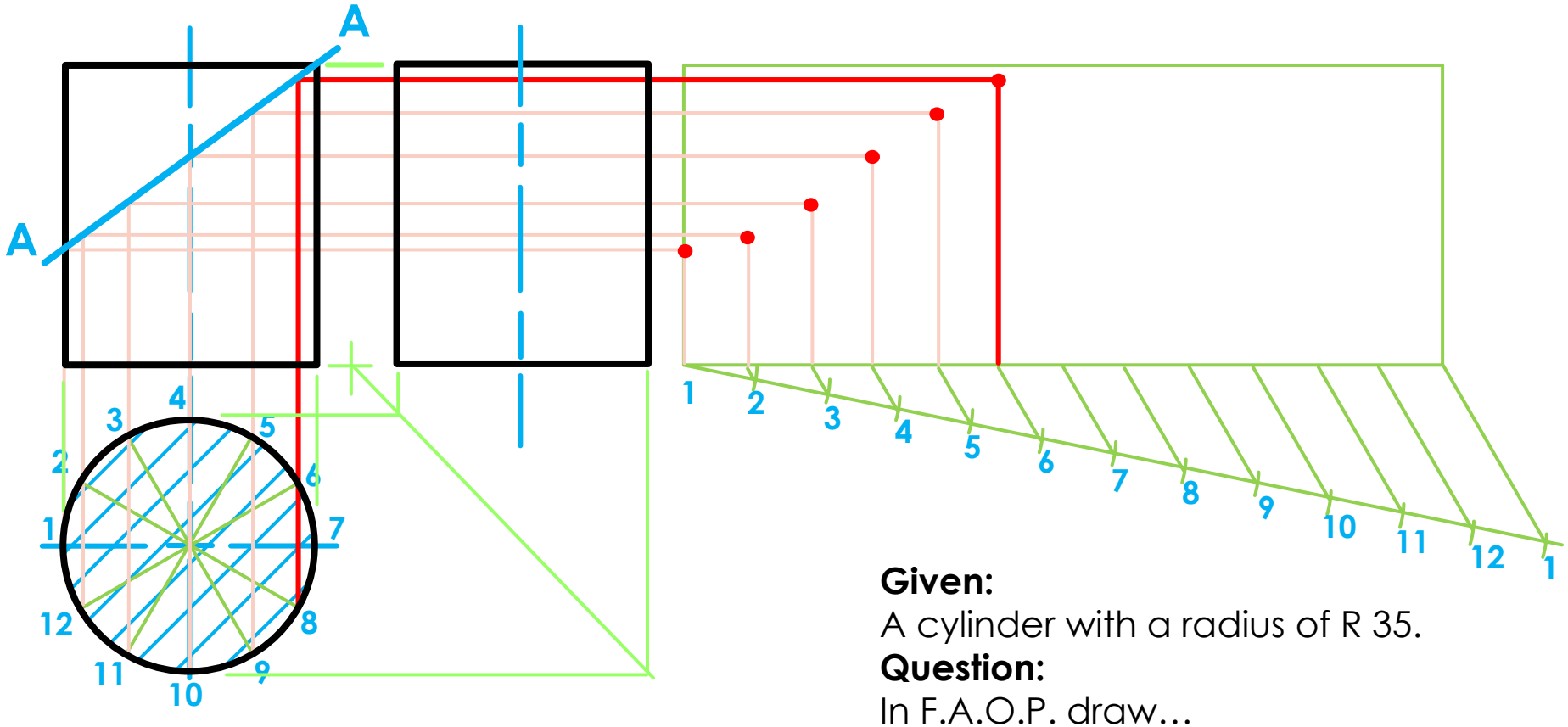
education
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



Given:
A cylinder with a radius of R 35.

Question:
In F.A.O.P. draw…

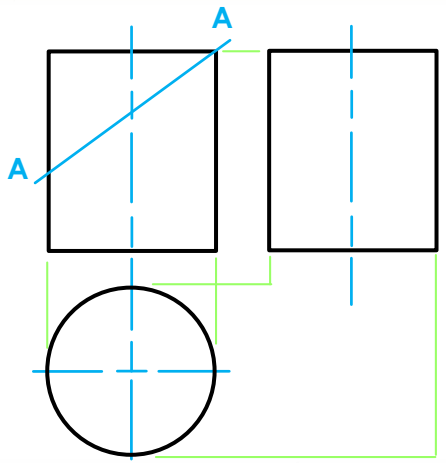
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

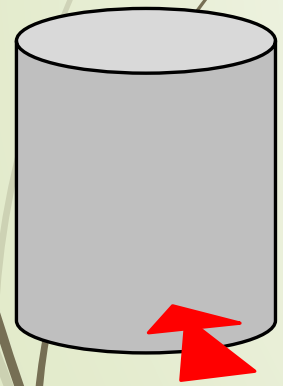
Circumference of the circle:

= 2∏r
= 2 x 3,141592654 x 35
= 109,95
= 110

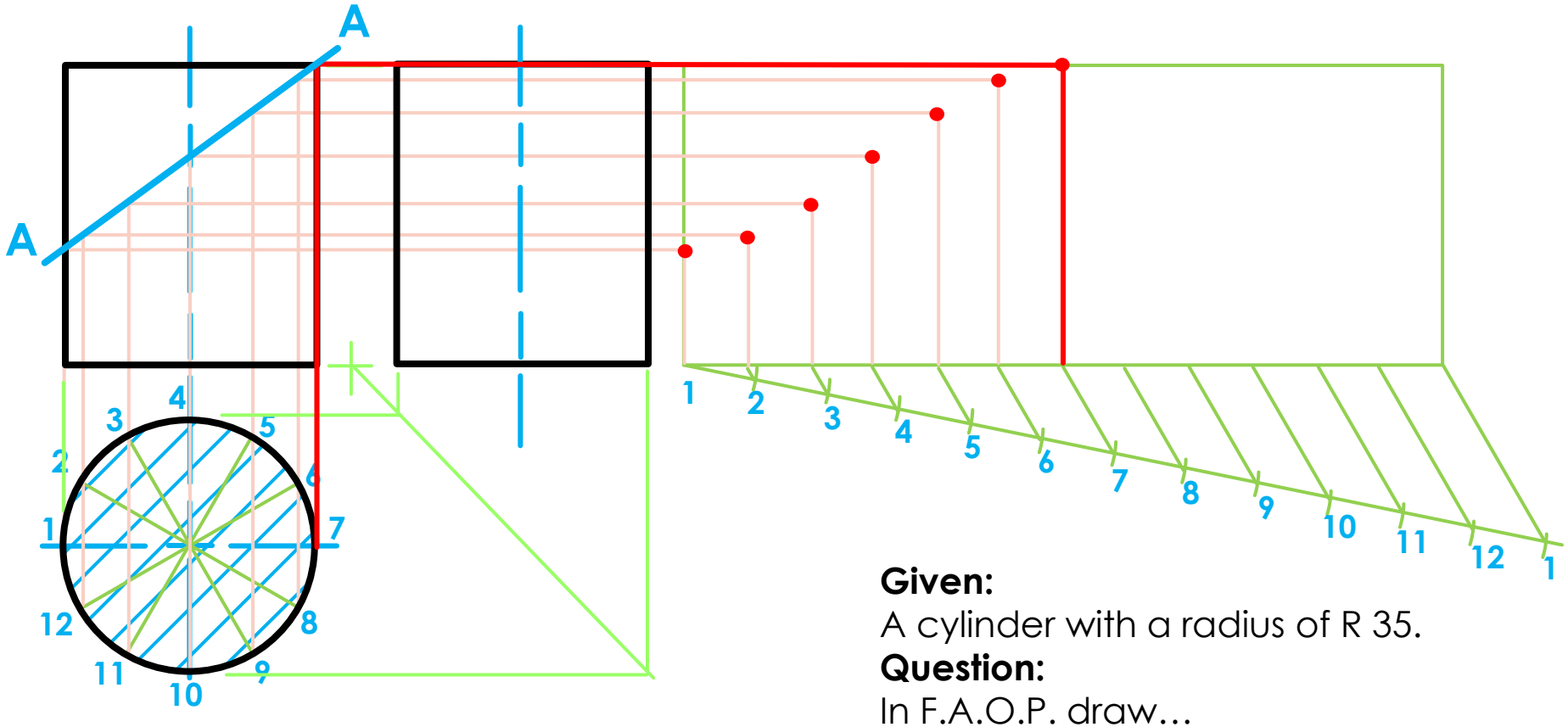
education
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



Circumference of the circle:

= 2∏r

= 2 x 3,141592654 x 35

= 109,95

= 110

Given:

A cylinder with a radius of R 35.

Question:

In F.A.O.P. draw…

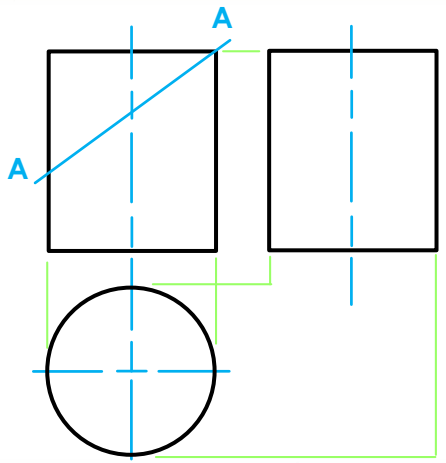
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

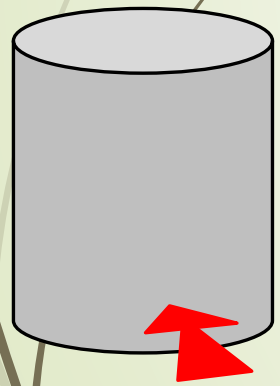
education

Department of Education

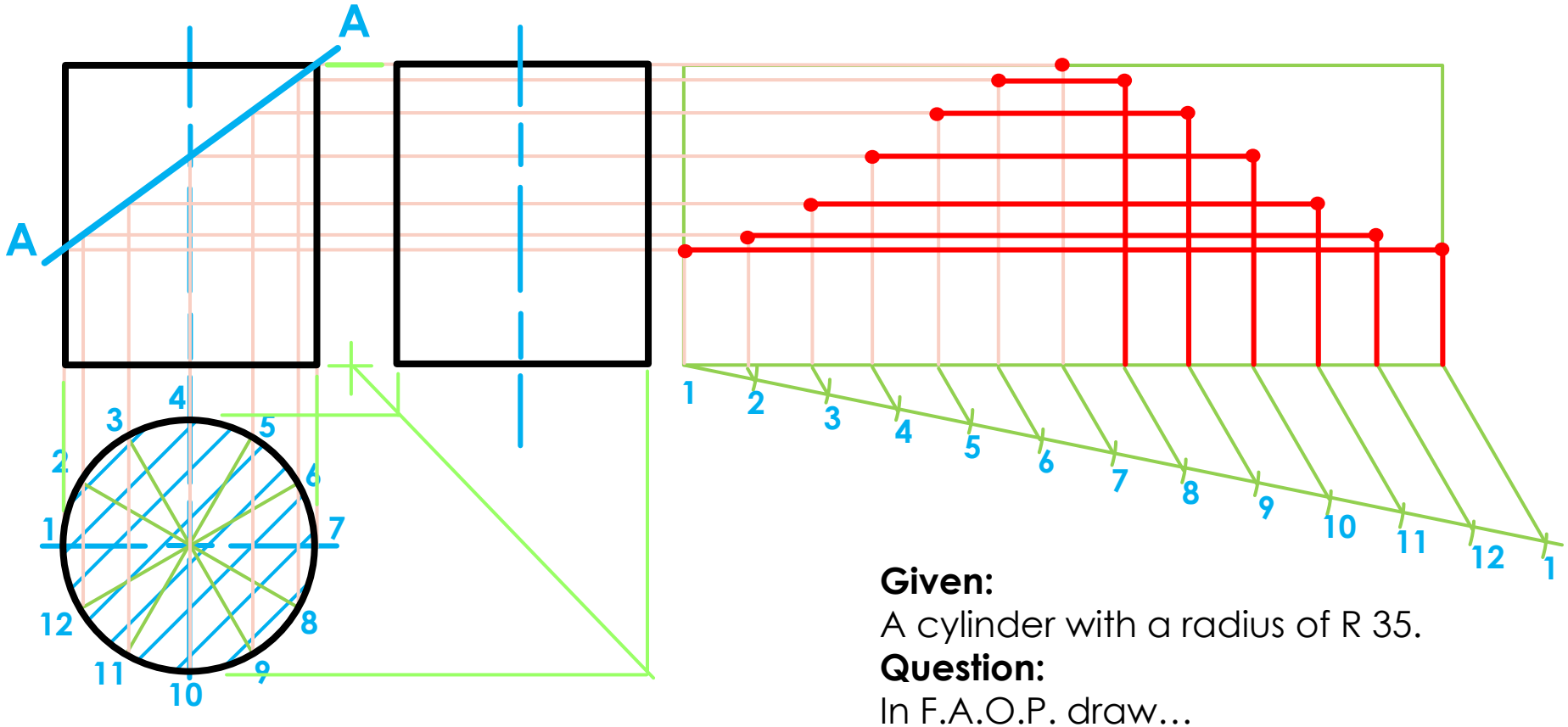
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



Given:
A cylinder with a radius of R 35.

Question:
In F.A.O.P. draw…

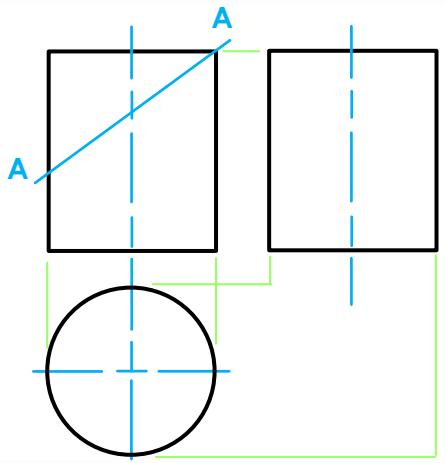
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

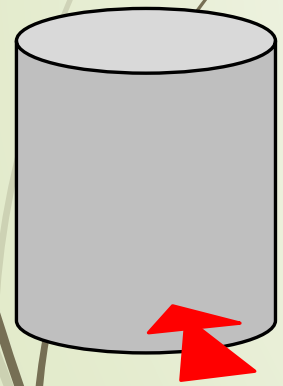
Circumference of the circle:

= 2∏r
= 2 x 3,141592654 x 35
= 109,95
= 110

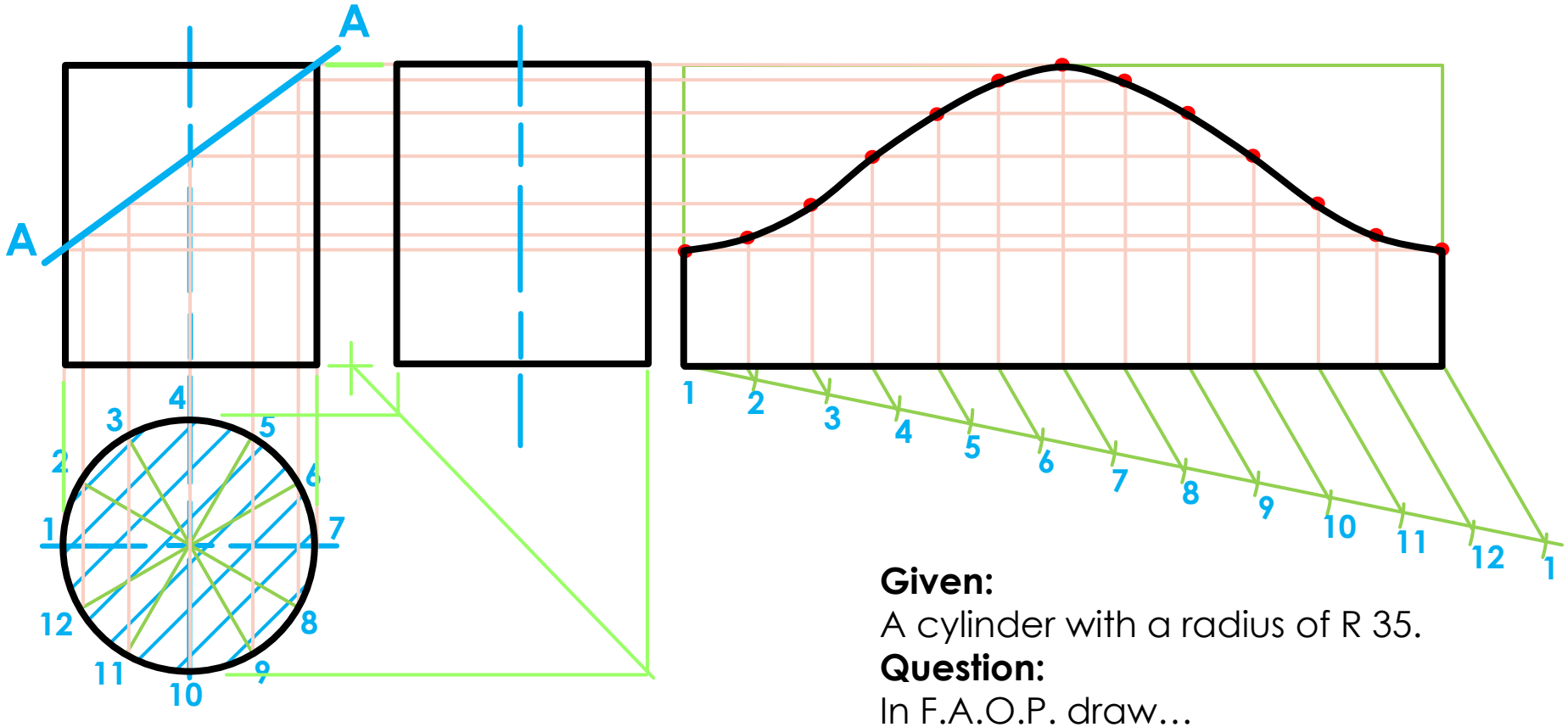
education
Department of Education
FREE STATE PROVINCE

Application on polygons





FRONT VIEW



Given:
A cylinder with a radius of R 35.

Question:
In F.A.O.P. draw…

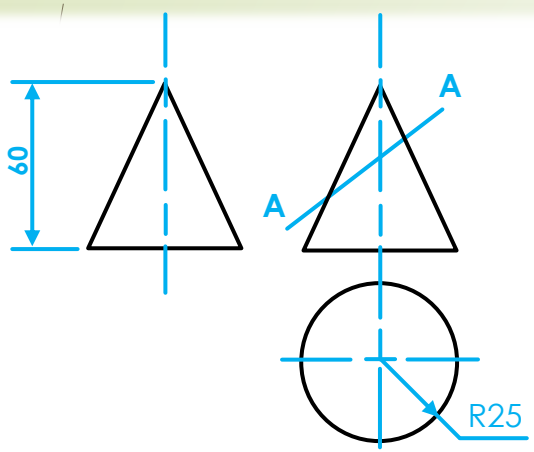
1. A front view
2. A left view
3. A sectioned top view
4. **Develop the surface of the solid**

Circumference of the circle:

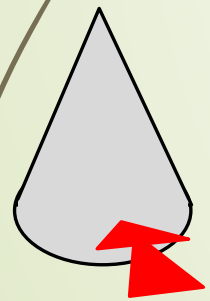
= 2∏r
= 2 x 3,141592654 x 35
= 109,95
= 110

education
Department of Education
FREE STATE PROVINCE

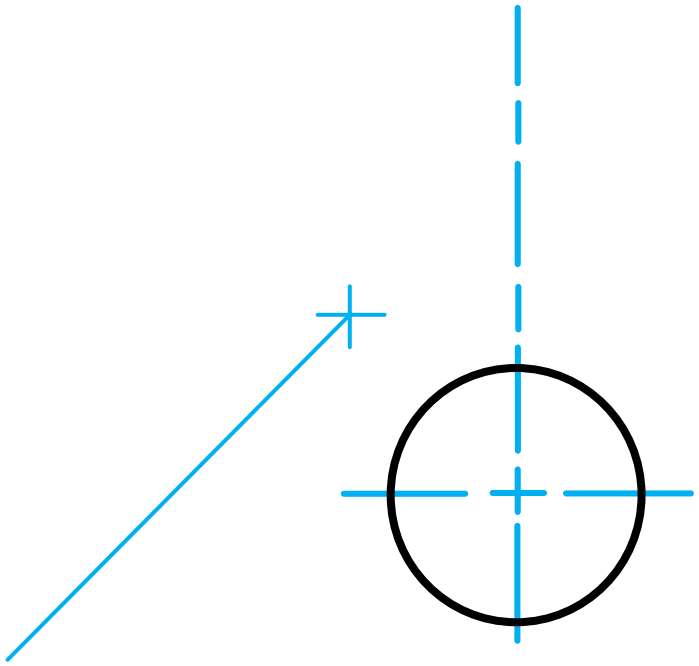
Application on polygons

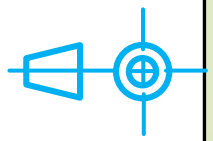


Given:
A cone 60 mm high.
Question:
In F.A.O.P. draw…
1. A front view
2. A right view
3. A sectioned **top view**
4. Develop the surface of the solid



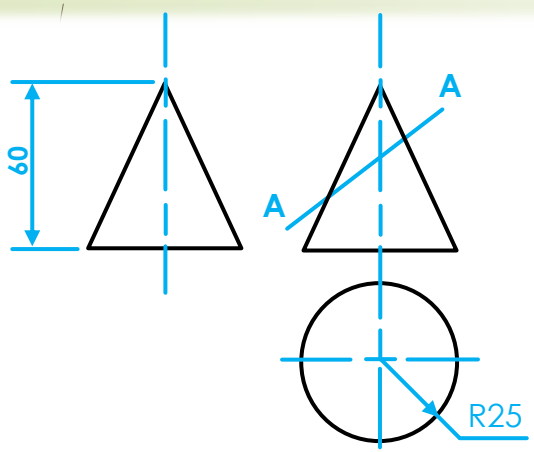
FRONT VIEW





education
Department of Education
FREE STATE PROVINCE

Application on polygons



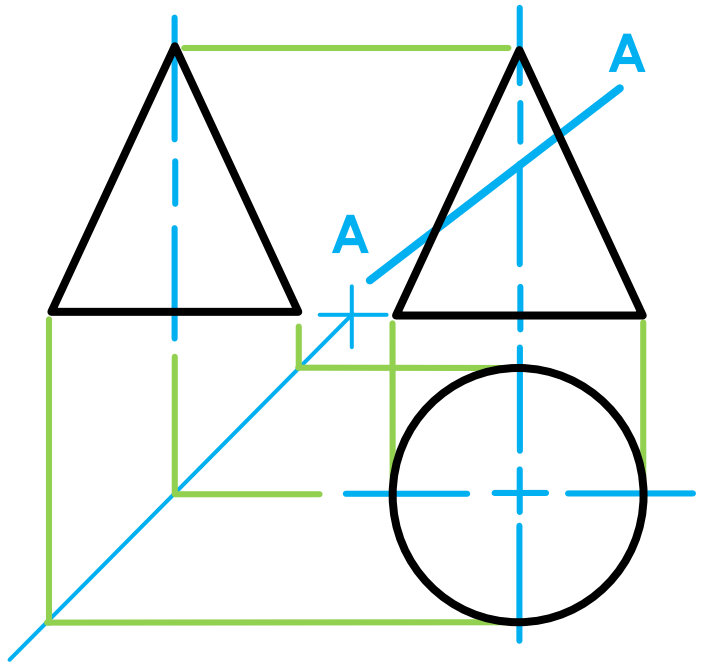
Given:

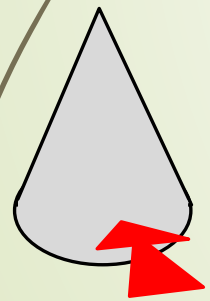
A cone 60 mm high.

Question:

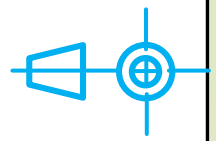
In F.A.O.P. draw…

1. **A front view**
2. **A right view**
3. A sectioned top view
4. Develop the surface of the solid

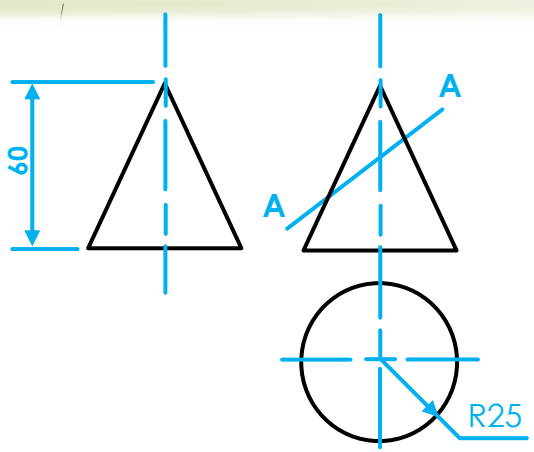




FRONT VIEW



Application on polygons



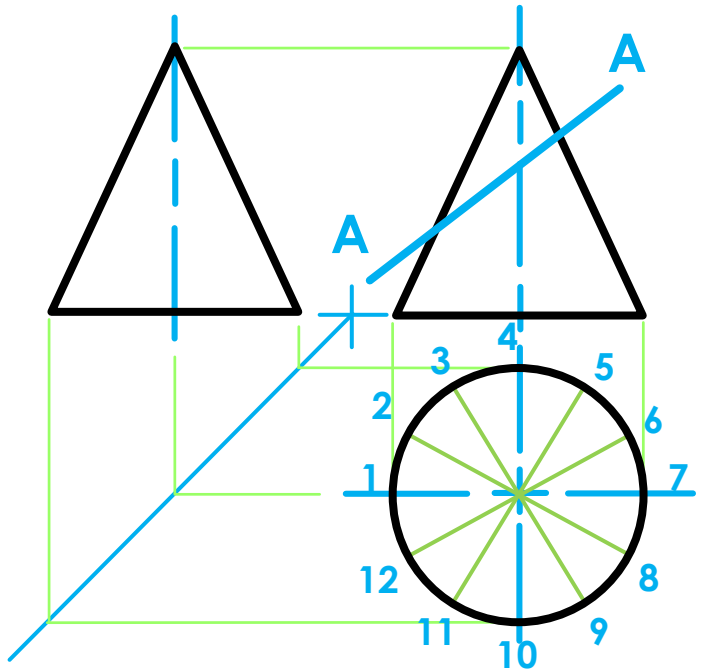
Given:

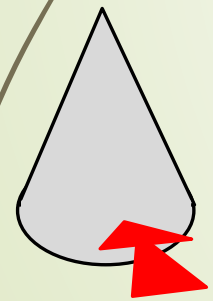
A cone 60 mm high.

Question:

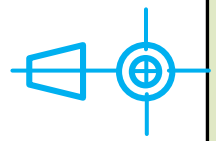
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid



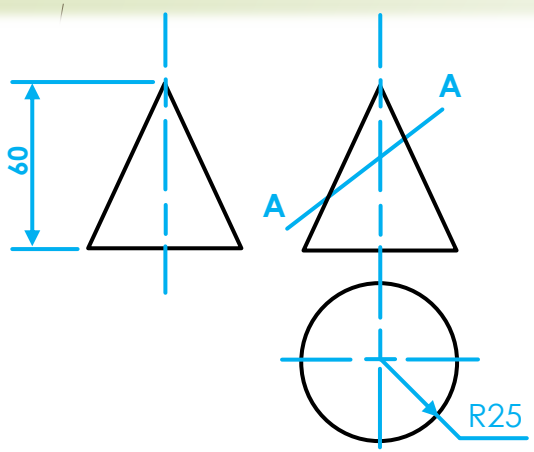


FRONT VIEW

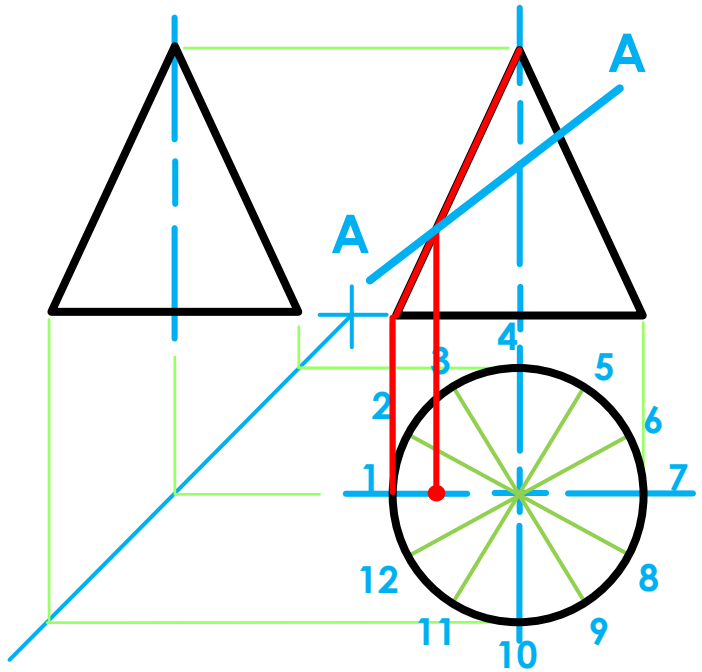


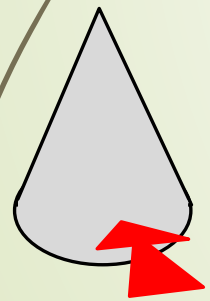
education
Department of Education
FREE STATE PROVINCE

Application on polygons



Given:
A cone 60 mm high.
Question:
In F.A.O.P. draw…
1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid

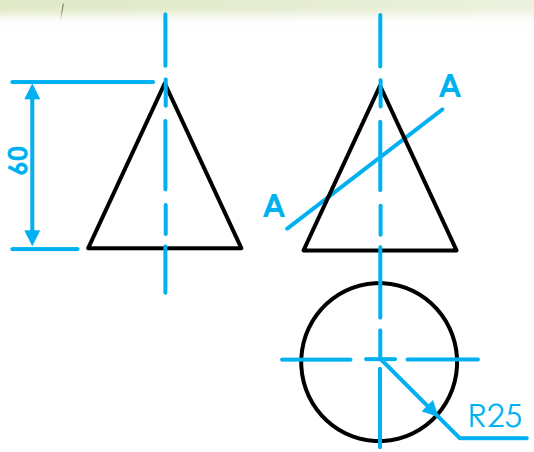




FRONT VIEW

education
Department of Education
FREE STATE PROVINCE

Application on polygons



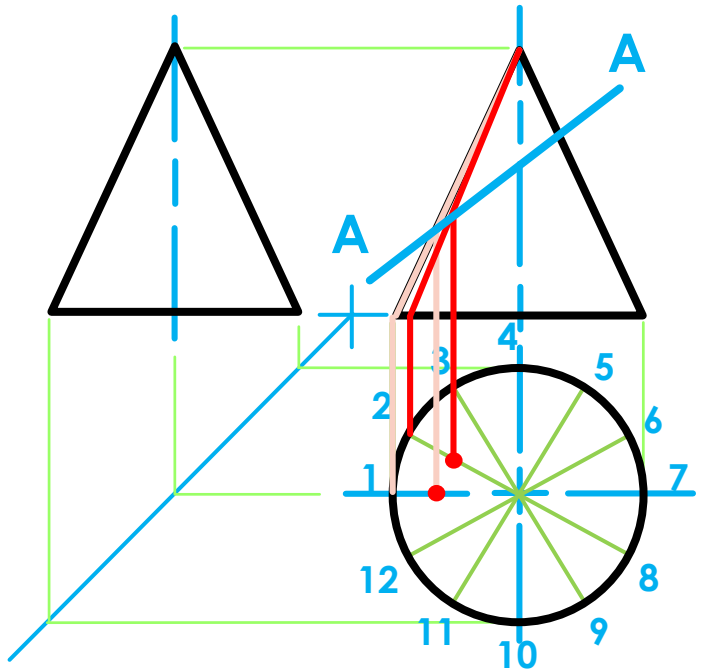
Given:

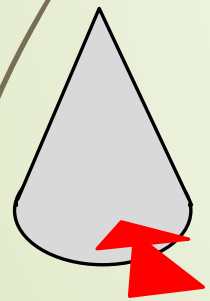
A cone 60 mm high.

Question:

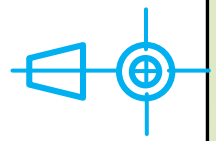
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid



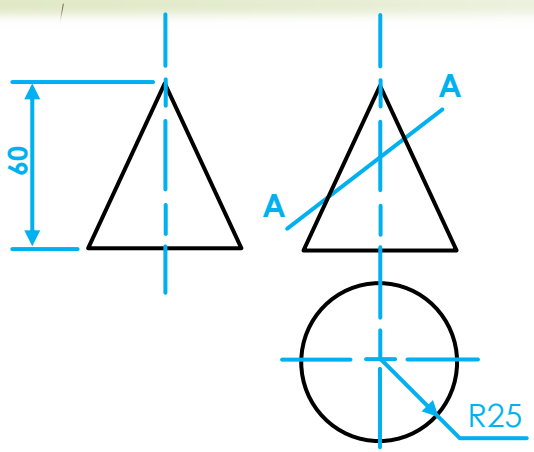


FRONT VIEW



education
Department of Education
FREE STATE PROVINCE

Application on polygons



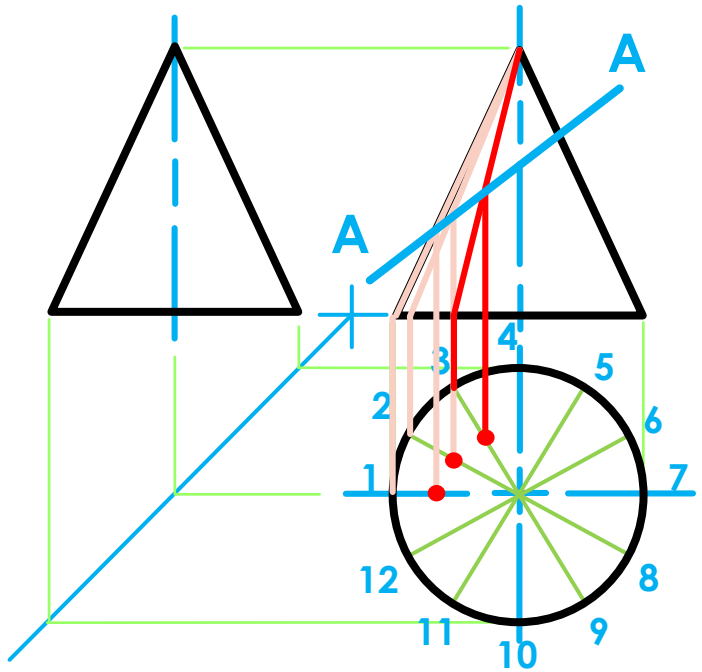
Given:

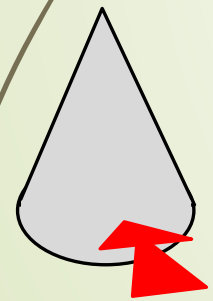
A cone 60 mm high.

Question:

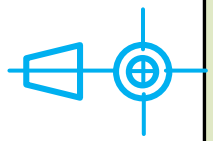
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid

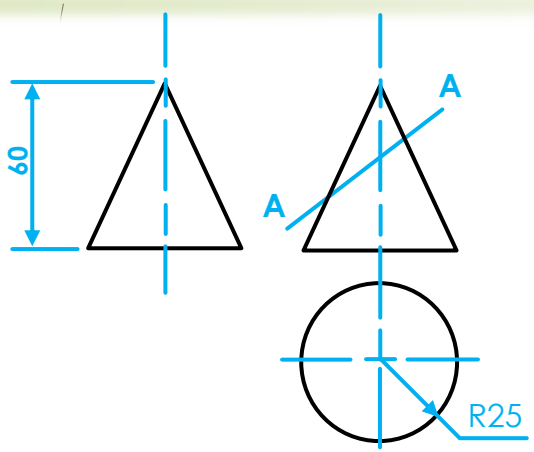




FRONT VIEW



Application on polygons



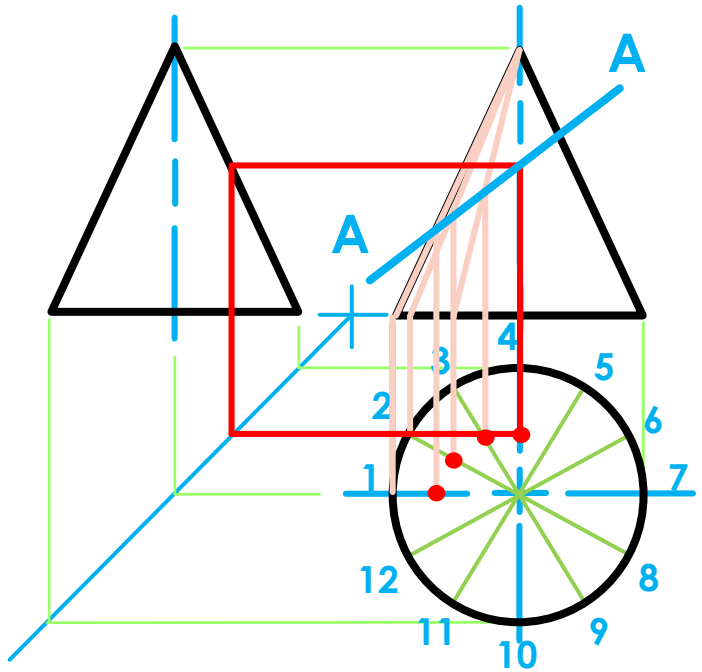
Given:

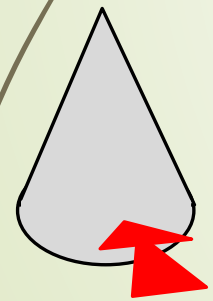
A cone 60 mm high.

Question:

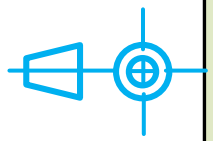
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid



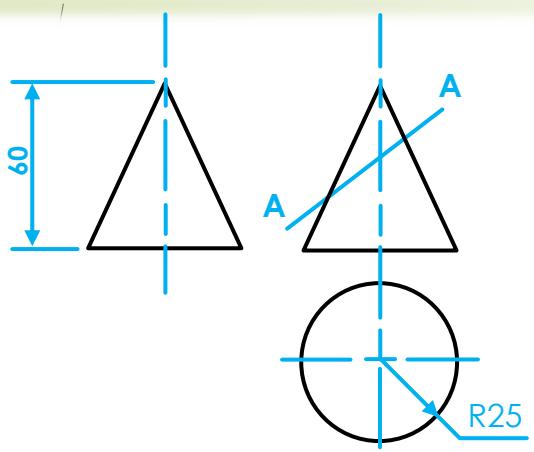


FRONT VIEW



education
Department of Education
FREE STATE PROVINCE

Application on polygons



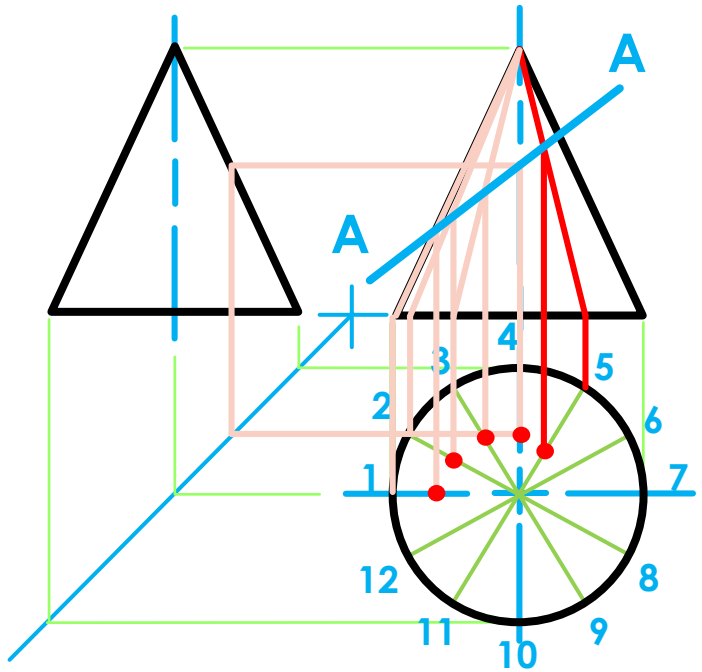
Given:

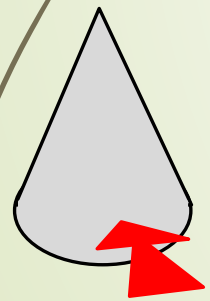
A cone 60 mm high.

Question:

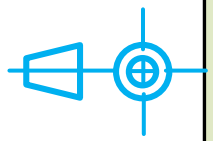
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid



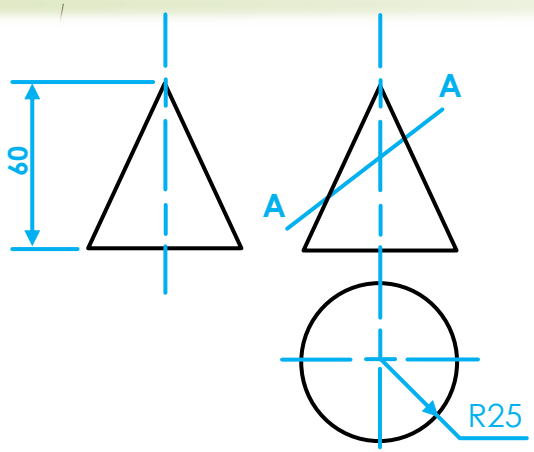


FRONT VIEW



education
Department of Education
FREE STATE PROVINCE

Application on polygons



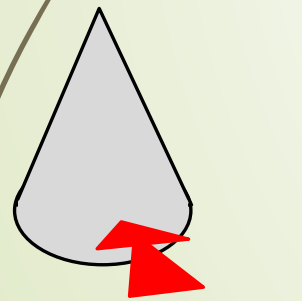
Given:

A cone 60 mm high.

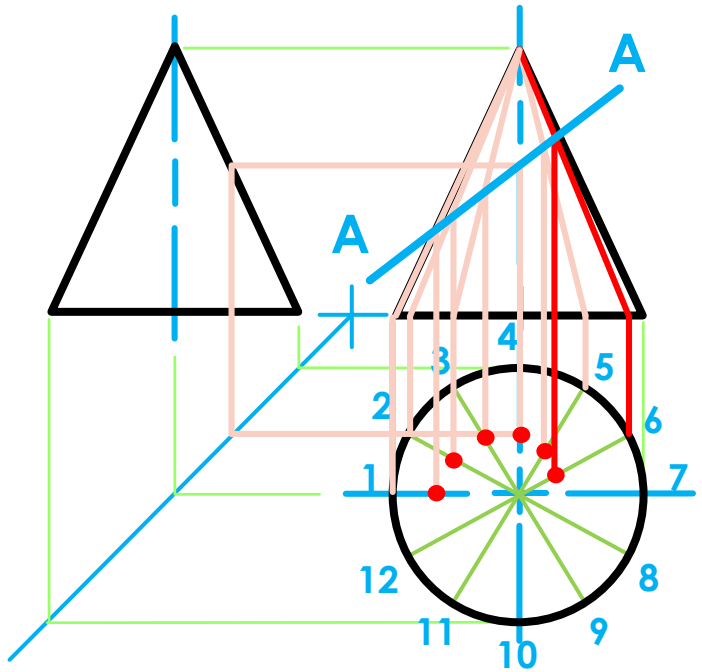
Question:

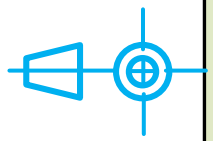
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid



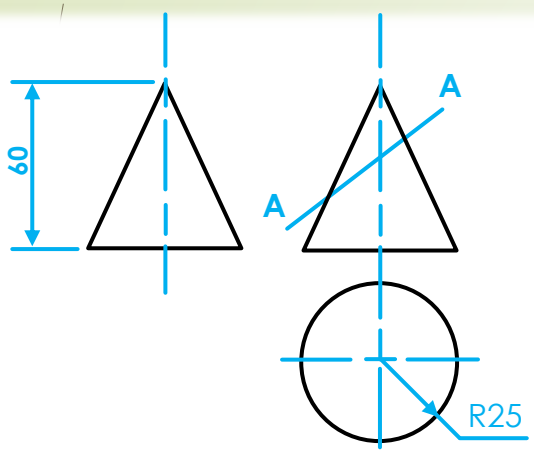
FRONT VIEW





education
Department of Education
FREE STATE PROVINCE

Application on polygons



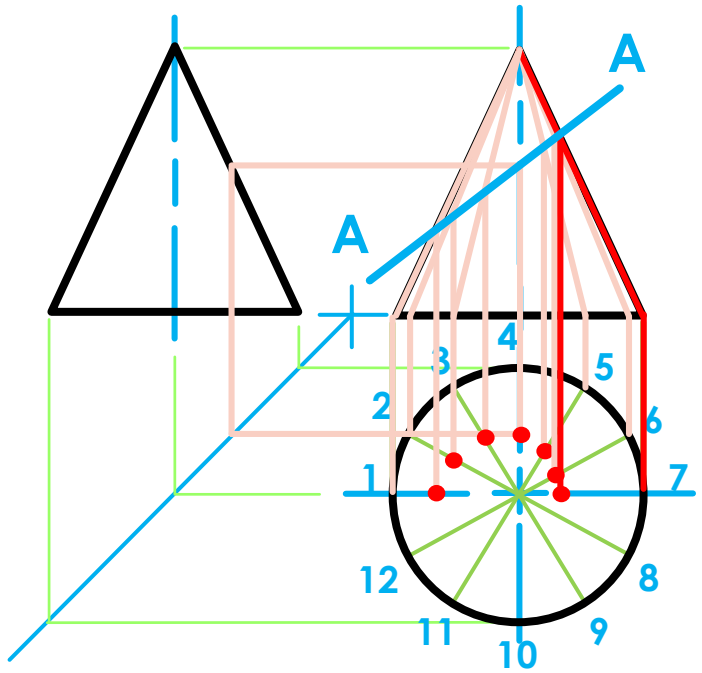
Given:

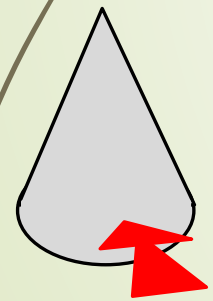
A cone 60 mm high.

Question:

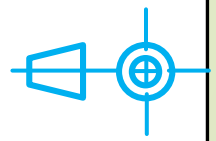
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid



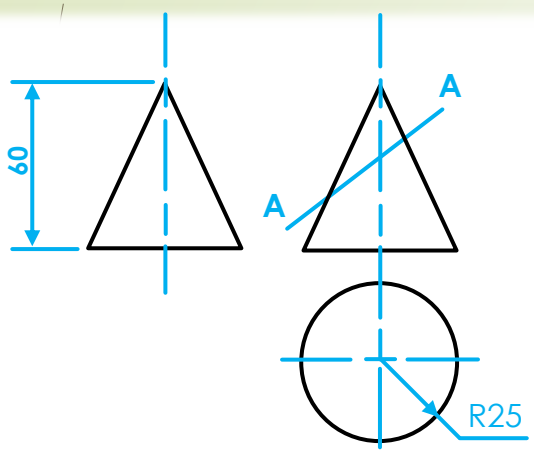


FRONT VIEW



education
Department of Education
FREE STATE PROVINCE

Application on polygons



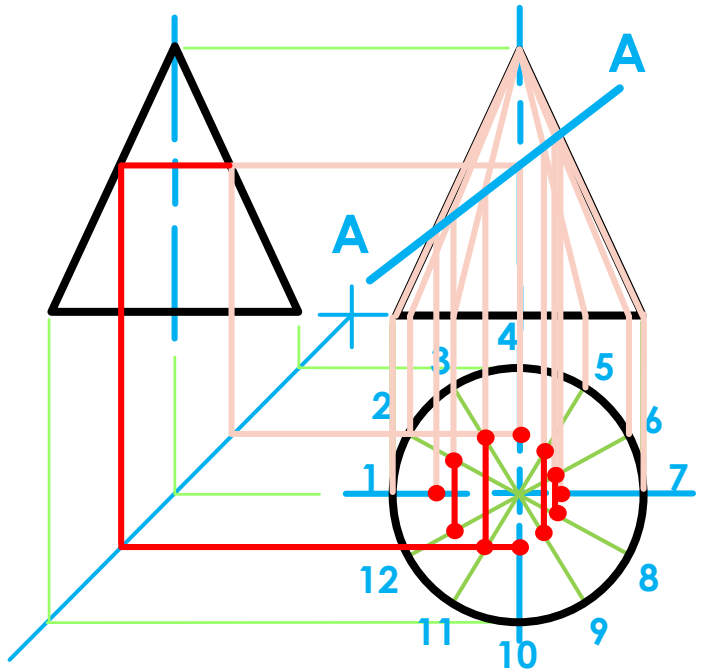
Given:

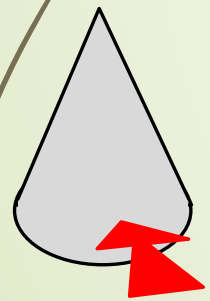
A cone 60 mm high.

Question:

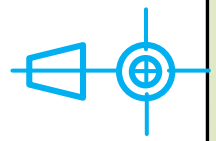
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid



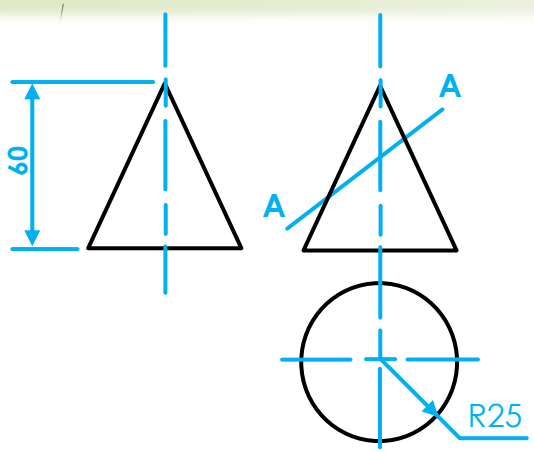


FRONT VIEW



education
Department of Education
FREE STATE PROVINCE

Application on polygons



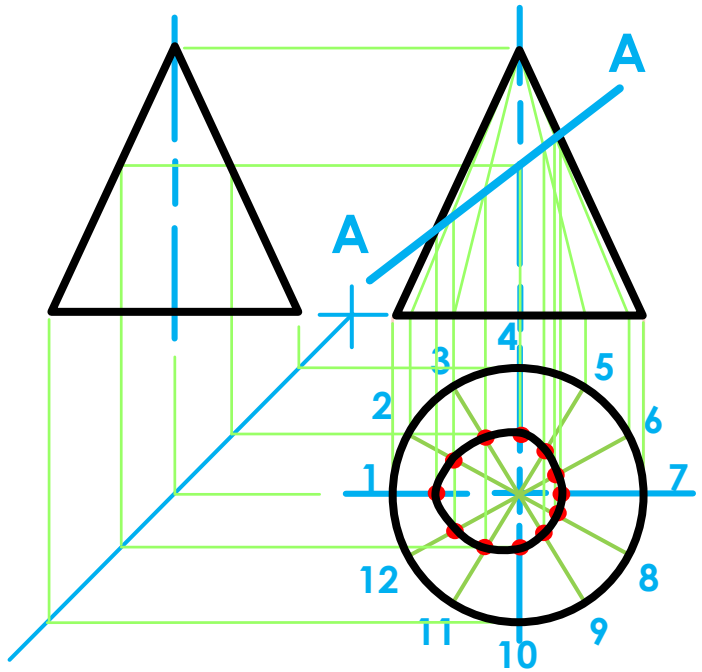
Given:

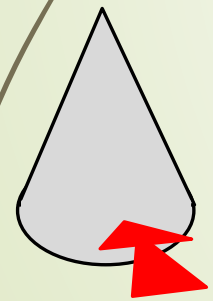
A cone 60 mm high.

Question:

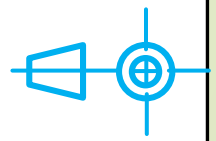
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid

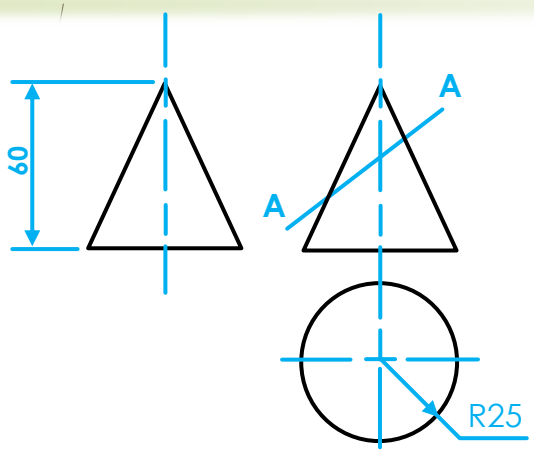




FRONT VIEW



Application on polygons



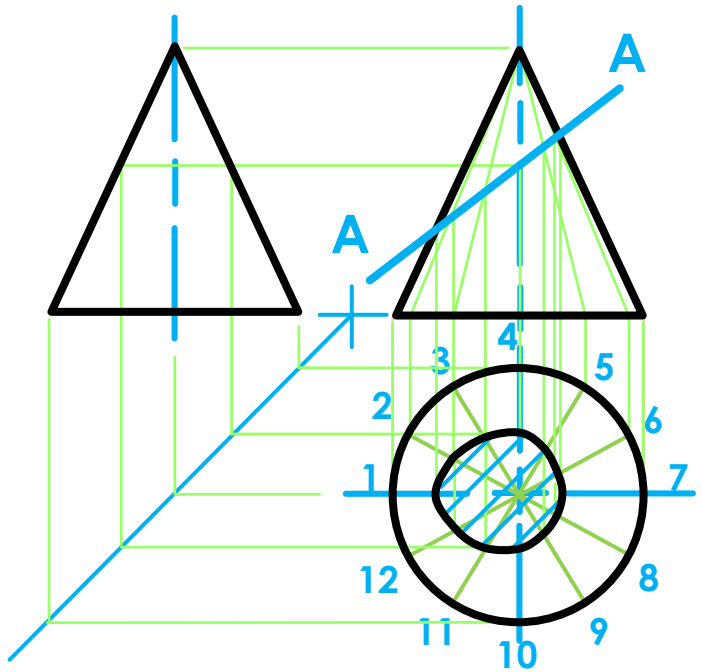
Given:

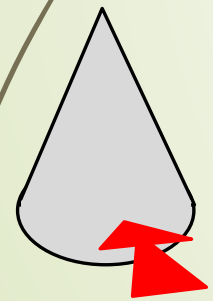
A cone 60 mm high.

Question:

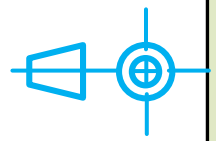
In F.A.O.P. draw…

1. A front view
2. A right view
3. **A sectioned top view**
4. Develop the surface of the solid

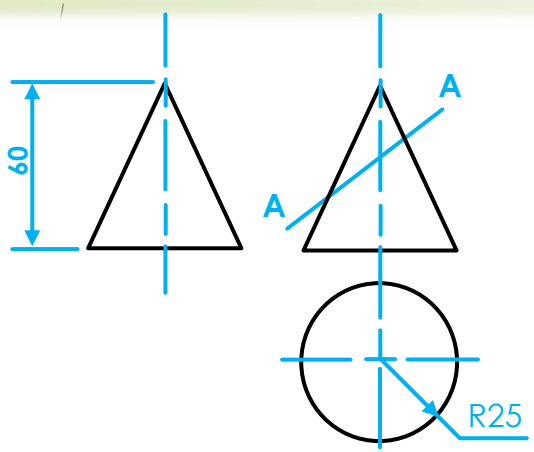




FRONT VIEW



Application on polygons



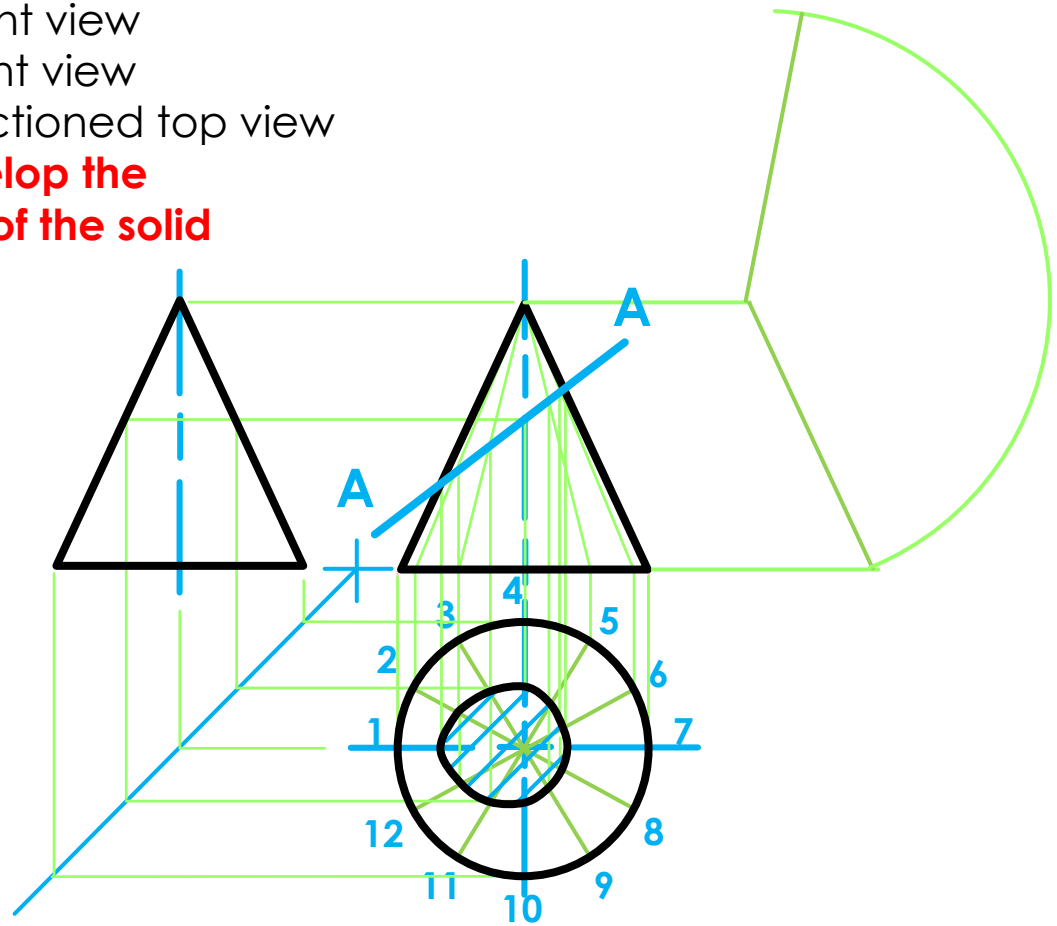
Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**



Circumference of the circle:

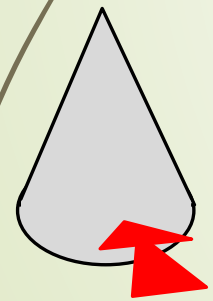
$$= \frac{R}{S} \times \frac{360°}{1}$$

$$= \frac{25}{60} \times \frac{360°}{1}$$

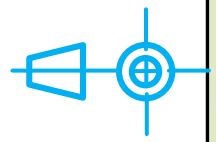
$$= 0{,}416666666 \times \frac{360°}{}$$

$$= \frac{150°}{12}$$

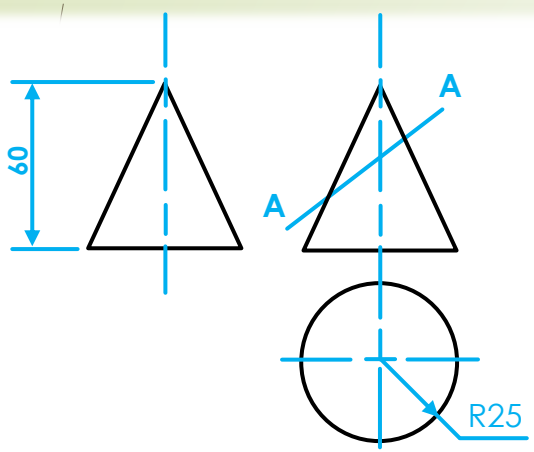
$$= 12{,}5°$$



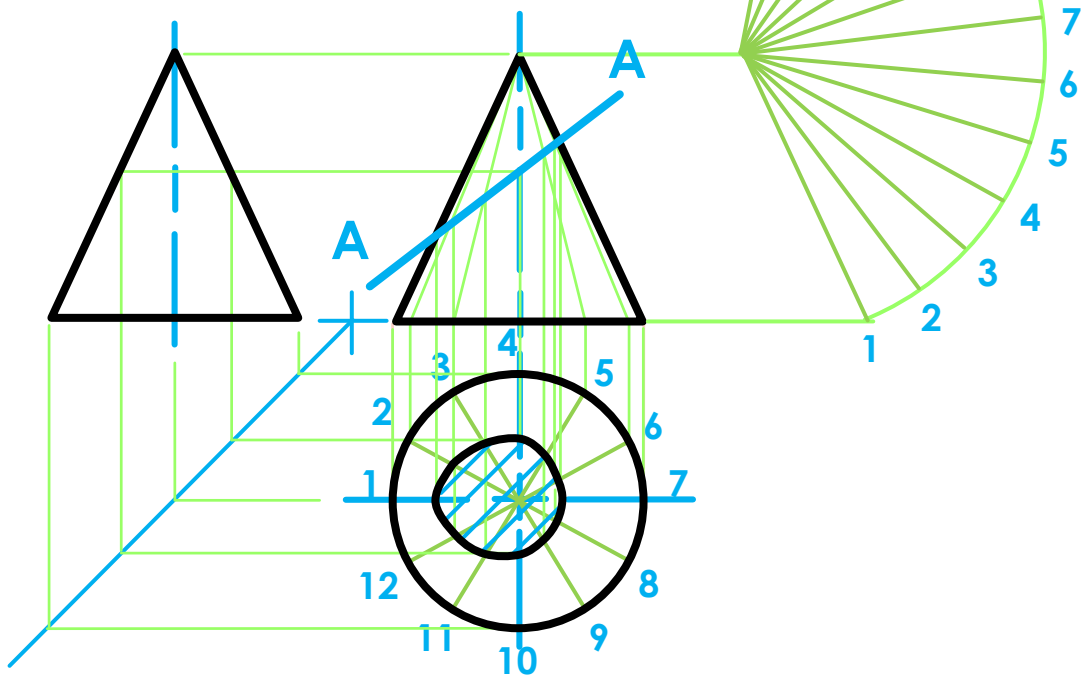
FRONT VIEW



Application on polygons



Given:
A cone 60 mm high.
Question:
In F.A.O.P. draw…
1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**



Circumference of the circle:

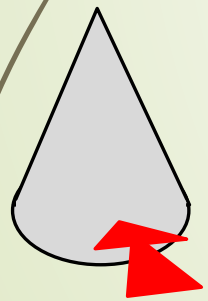
$$= \frac{R}{S} \times \frac{360°}{1}$$

$$= \frac{25}{60} \times \frac{360°}{1}$$

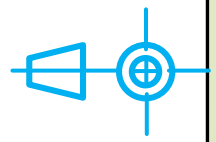
$$= 0{,}416666666 \times \frac{360°}{}$$

$$= \frac{150°}{12}$$

$$= 12{,}5°$$

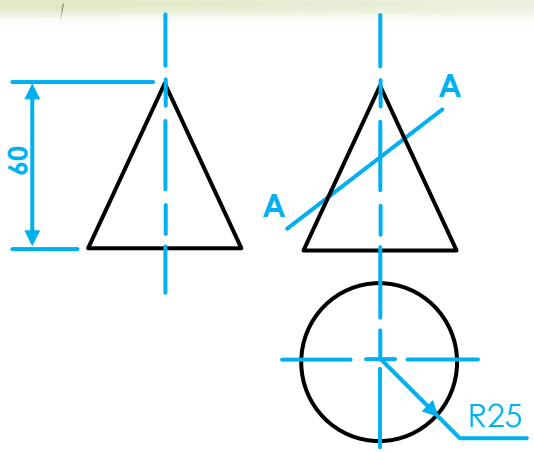


FRONT VIEW



education
Department of Education
FREE STATE PROVINCE

Application on polygons



Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**

Circumference of the circle:

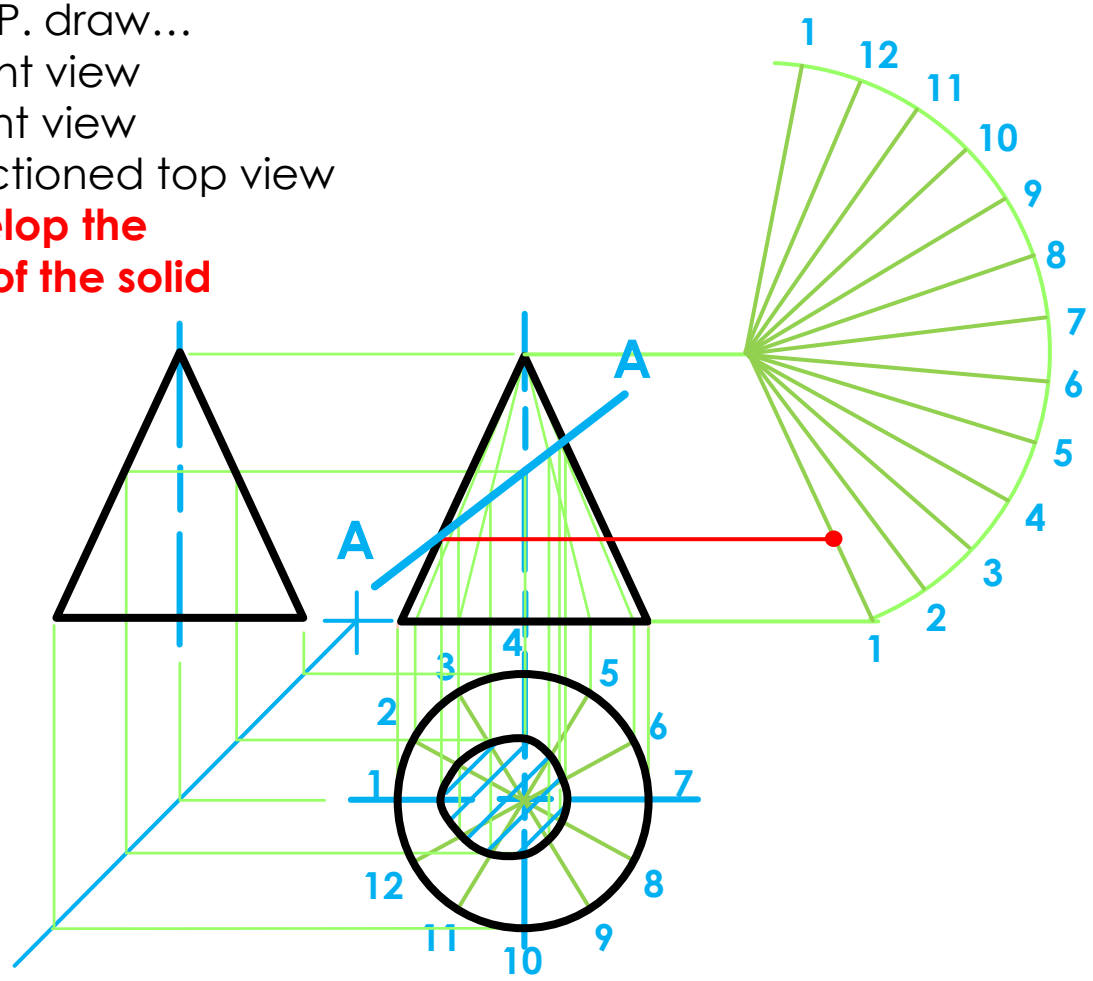
$= \frac{R}{S} \times \frac{360°}{1}$

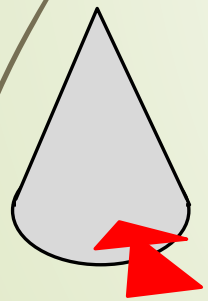
$= \frac{25}{60} \times \frac{360°}{1}$

$= 0{,}416666666 \times \frac{360°}{1}$

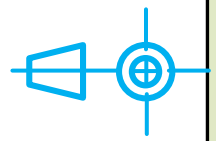
$= \frac{150°}{12}$

$= 12{,}5°$

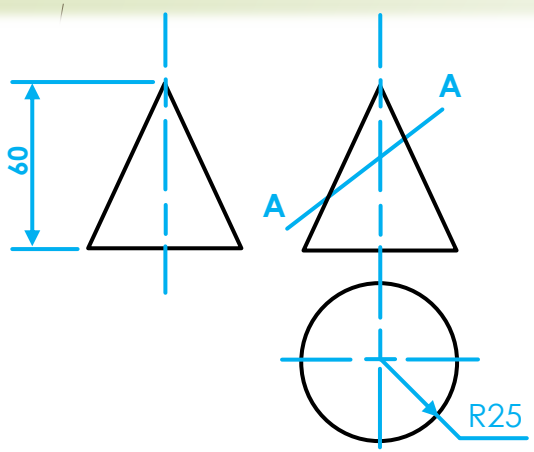




FRONT VIEW



Application on polygons



Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**

Circumference of the circle:

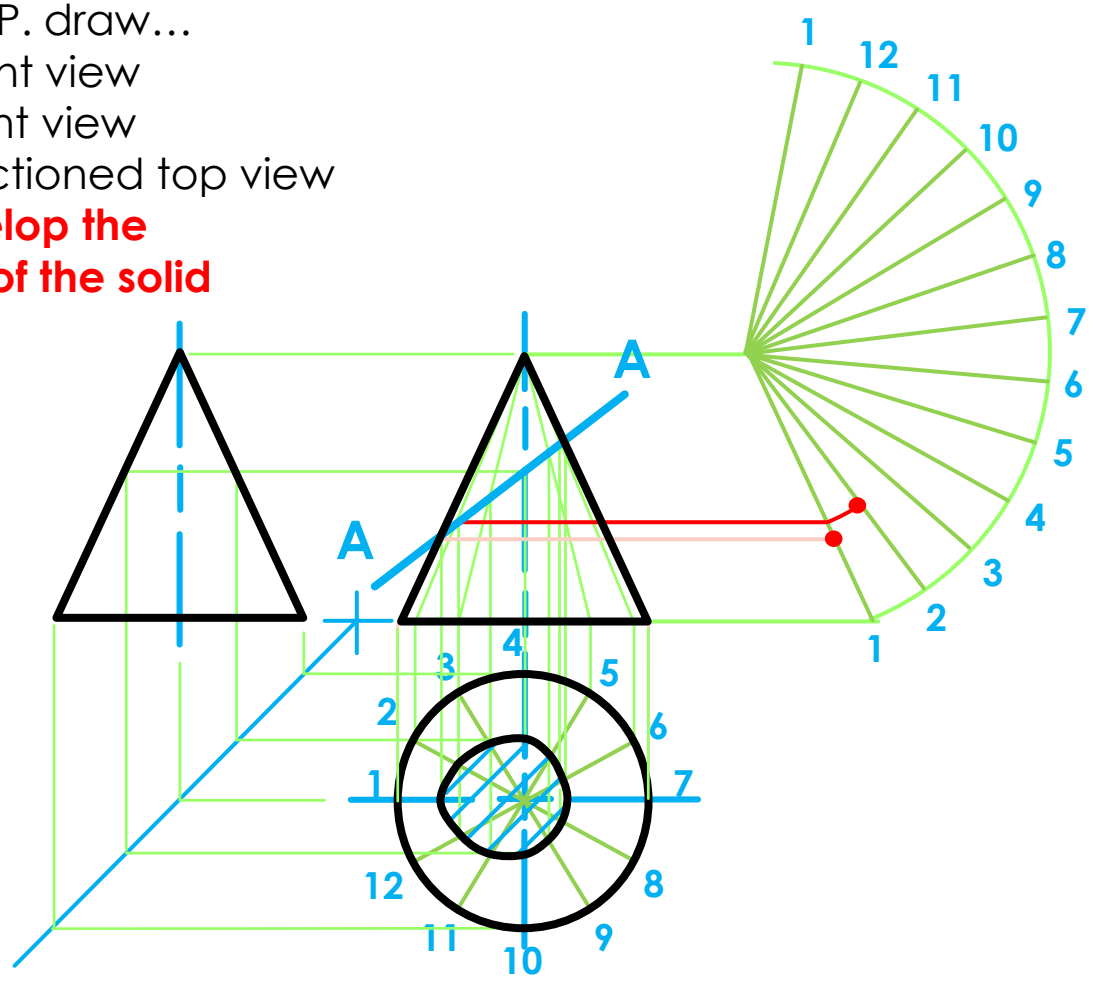
$= \frac{R}{S} \times \frac{360°}{1}$

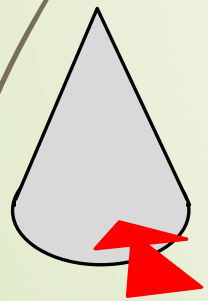
$= \frac{25}{60} \times \frac{360°}{1}$

$= 0{,}416666666 \times \frac{360°}{1}$

$= \frac{150°}{12}$

$= 12{,}5°$

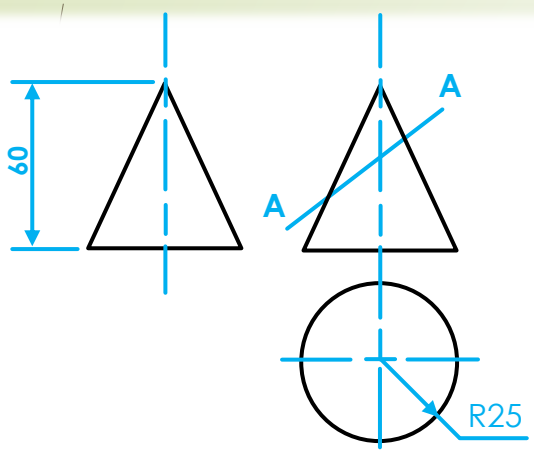




FRONT VIEW

education
Department of Education
FREE STATE PROVINCE

Application on polygons



Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**

Circumference of the circle:

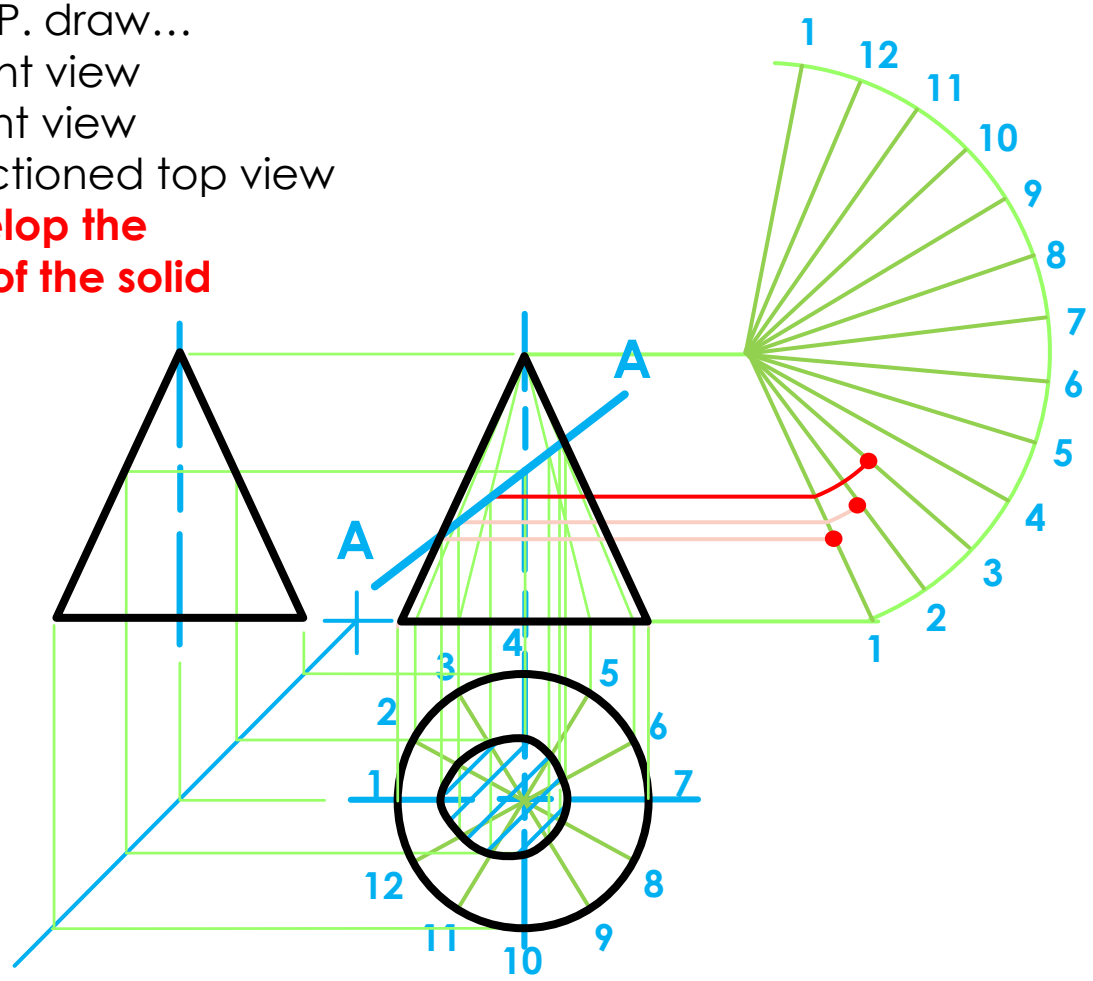
$= \frac{R}{S} \times \frac{360°}{1}$

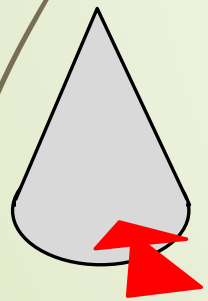
$= \frac{25}{60} \times \frac{360°}{1}$

$= 0{,}416666666 \times \frac{360°}{}$

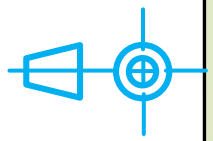
$= \frac{150°}{12}$

$= 12{,}5°$

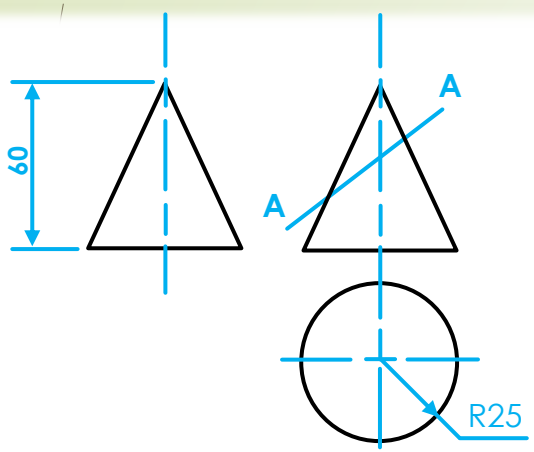




FRONT VIEW



Application on polygons



Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**

Circumference of the circle:

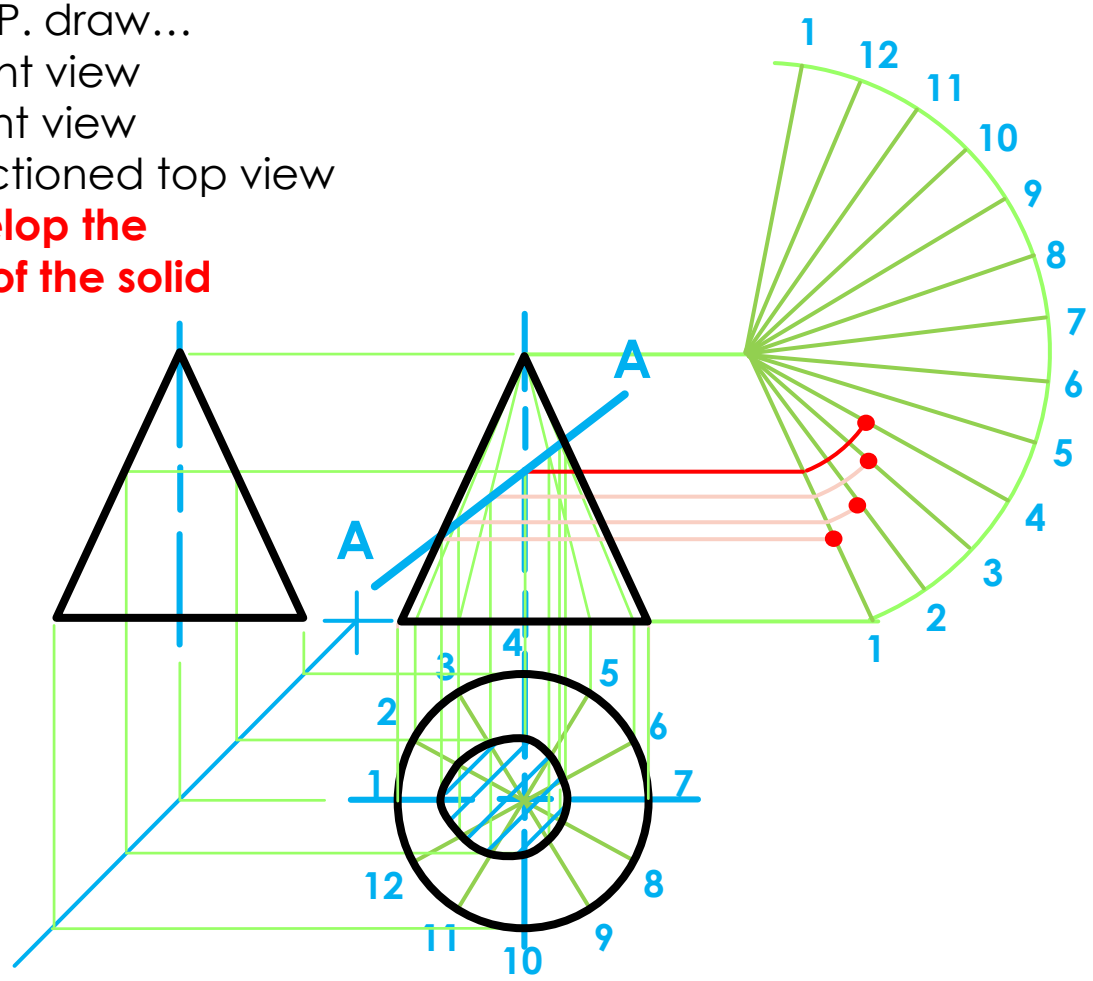
$= \frac{R}{S} \times \frac{360°}{1}$

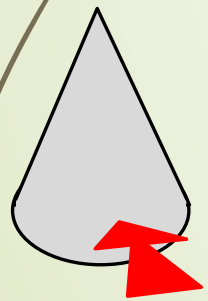
$= \frac{25}{60} \times \frac{360°}{1}$

$= 0{,}416666666 \times \frac{360°}{1}$

$= \frac{150°}{12}$

$= 12{,}5°$

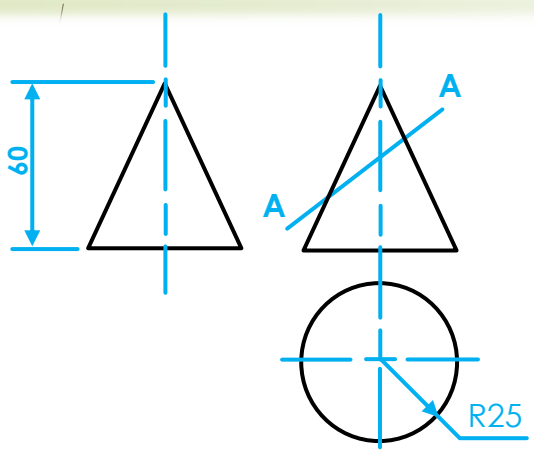




FRONT VIEW

education
Department of Education
FREE STATE PROVINCE

Application on polygons



Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**

Circumference of the circle:

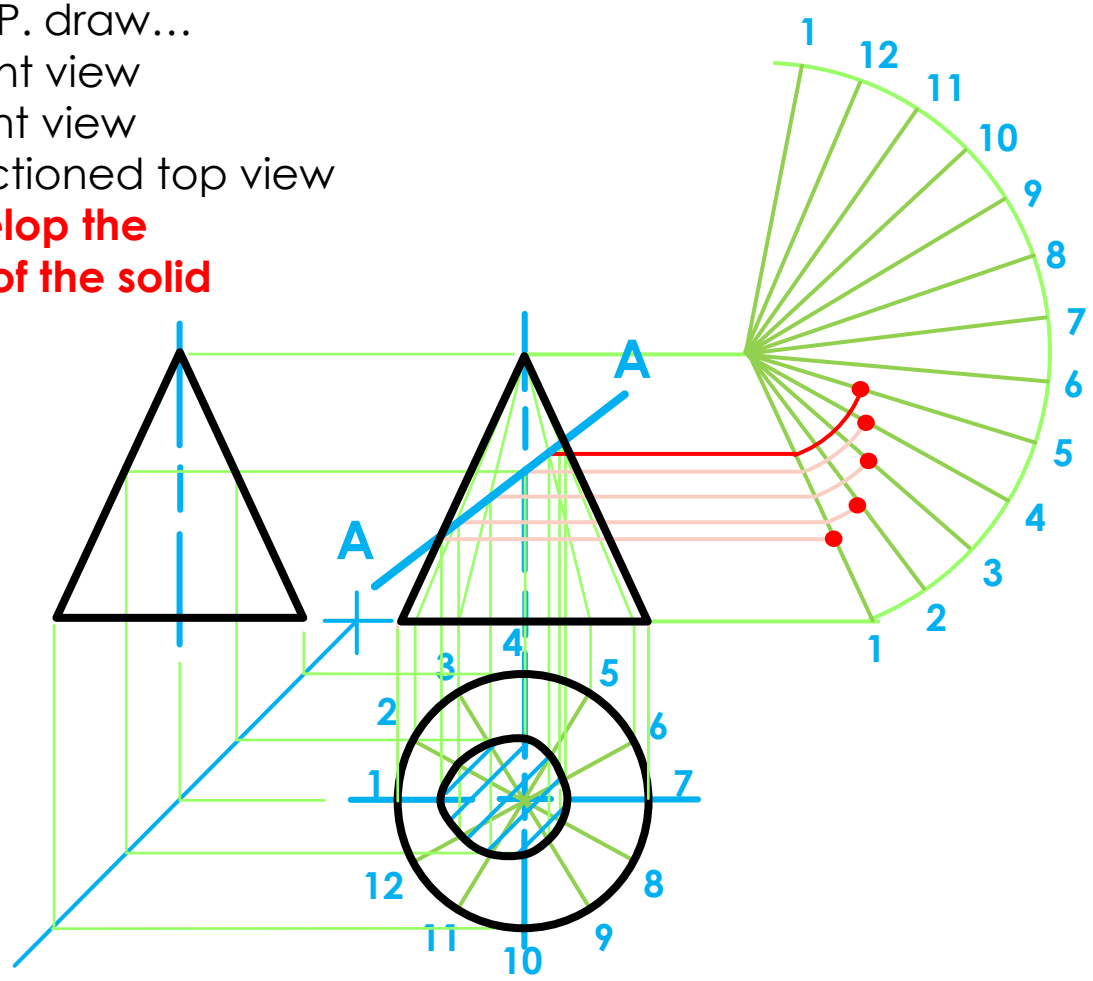
$$= \frac{R}{S} \times \frac{360°}{1}$$

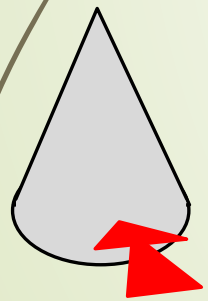
$$= \frac{25}{60} \times \frac{360°}{1}$$

$$= 0{,}416666666 \times \frac{360°}{}$$

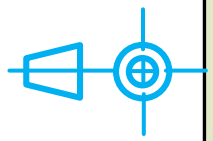
$$= \frac{150°}{12}$$

$$= 12{,}5°$$

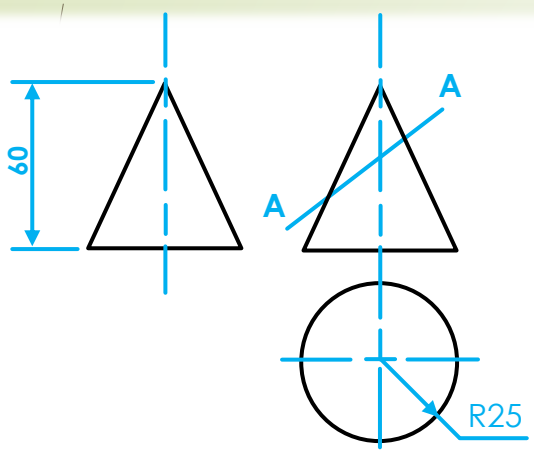




FRONT VIEW



Application on polygons



Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**

Circumference of the circle:

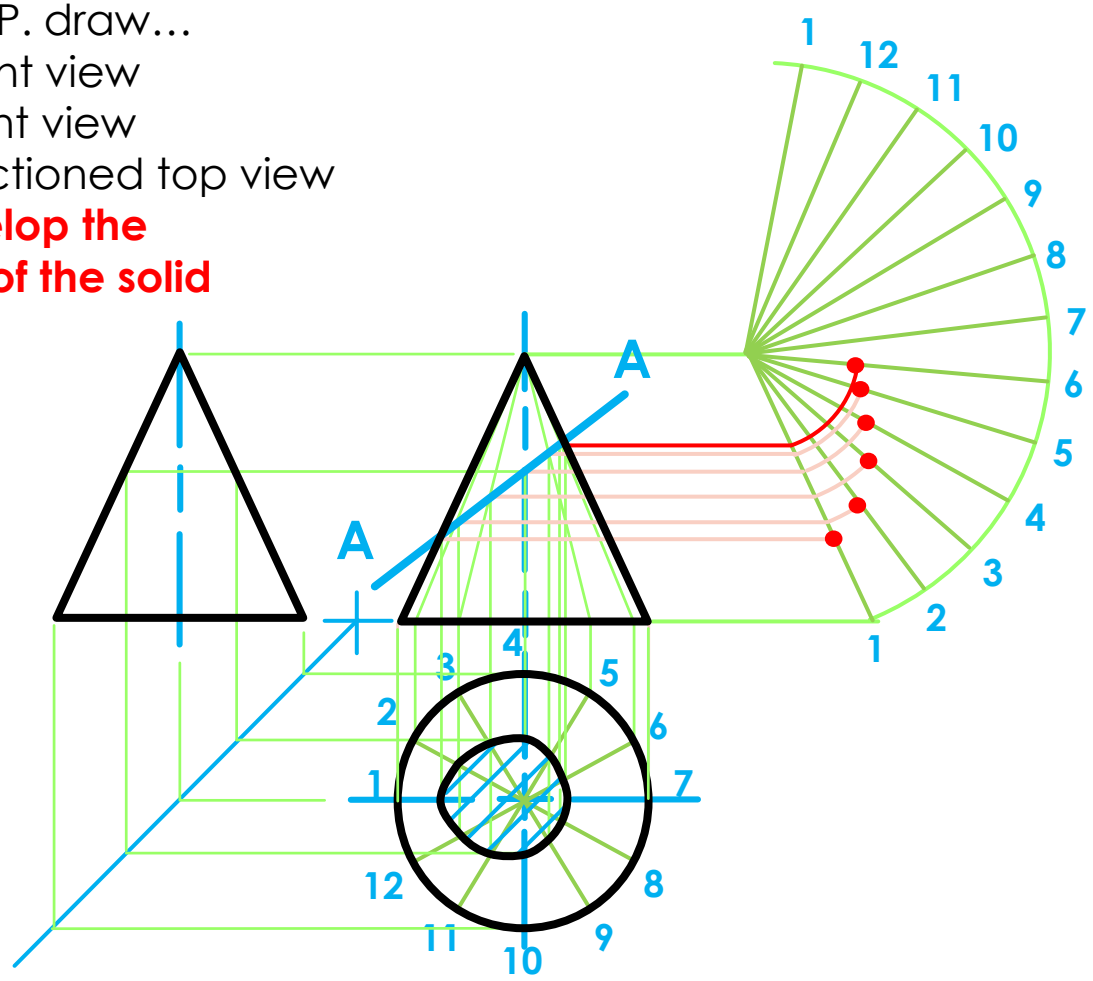
$$= \frac{R}{S} \times \frac{360°}{1}$$

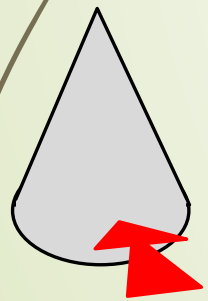
$$= \frac{25}{60} \times \frac{360°}{1}$$

$$= 0{,}416666666 \times \frac{360°}{}$$

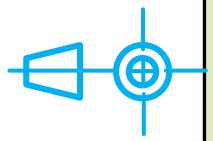
$$= \frac{150°}{12}$$

$$= 12{,}5°$$

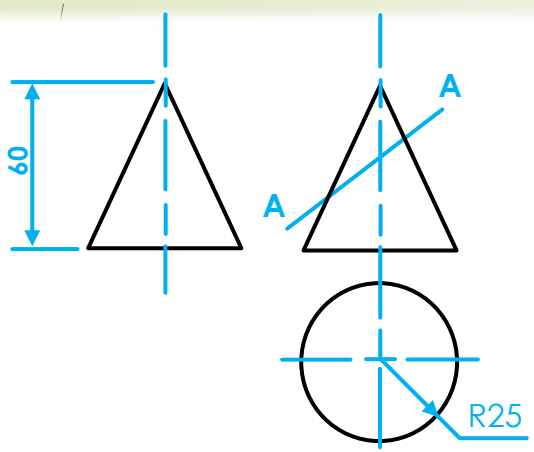




FRONT VIEW



Application on polygons



Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**

Circumference of the circle:

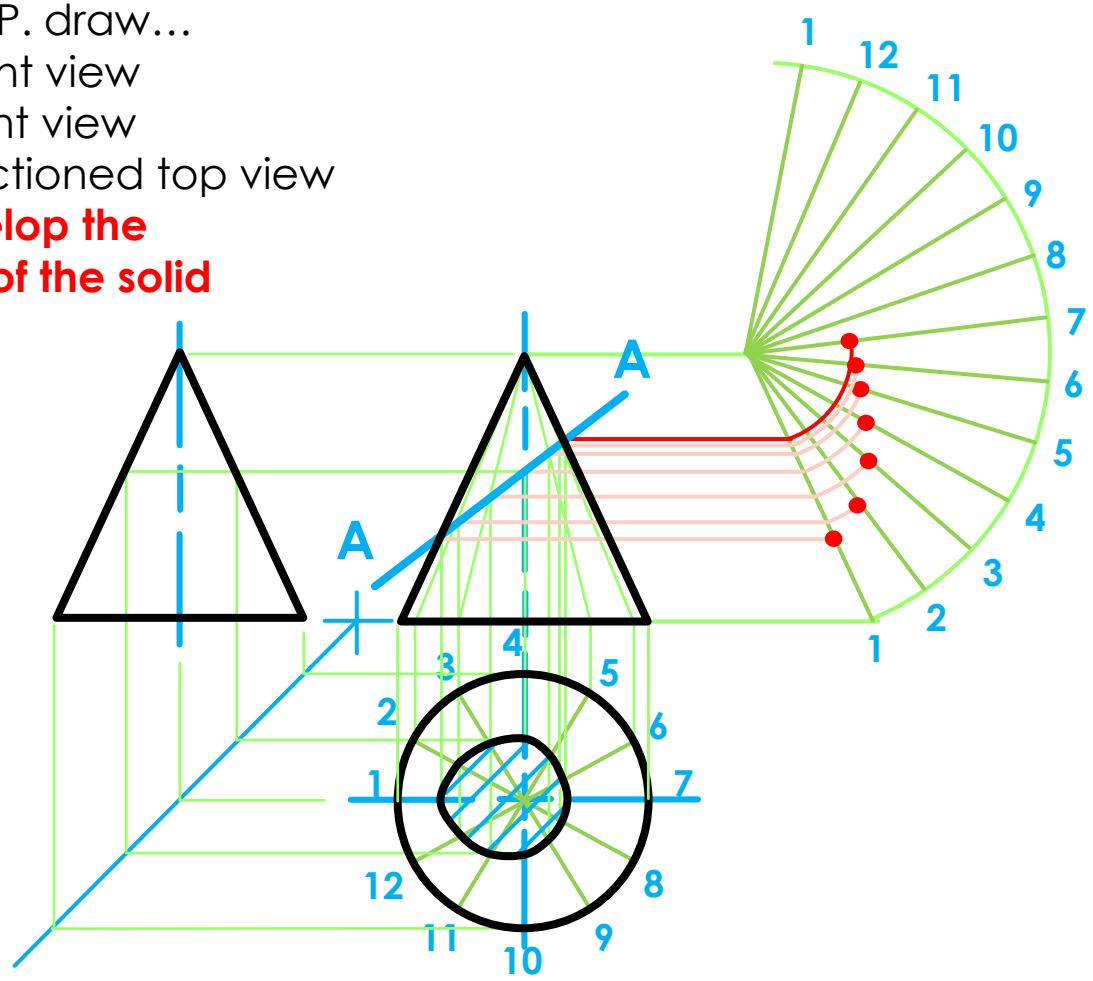
$$= \frac{R}{S} \times \frac{360°}{1}$$

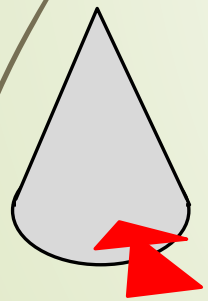
$$= \frac{25}{60} \times \frac{360°}{1}$$

$$= 0{,}416666666 \times \frac{360°}{}$$

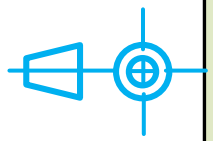
$$= \frac{150°}{12}$$

$$= 12{,}5°$$

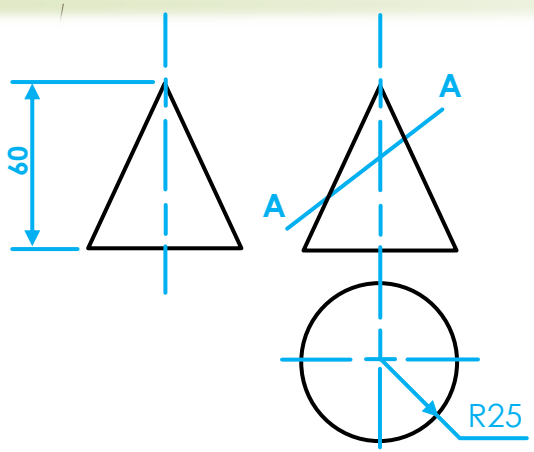




FRONT VIEW



Application on polygons



Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**

Circumference of the circle:

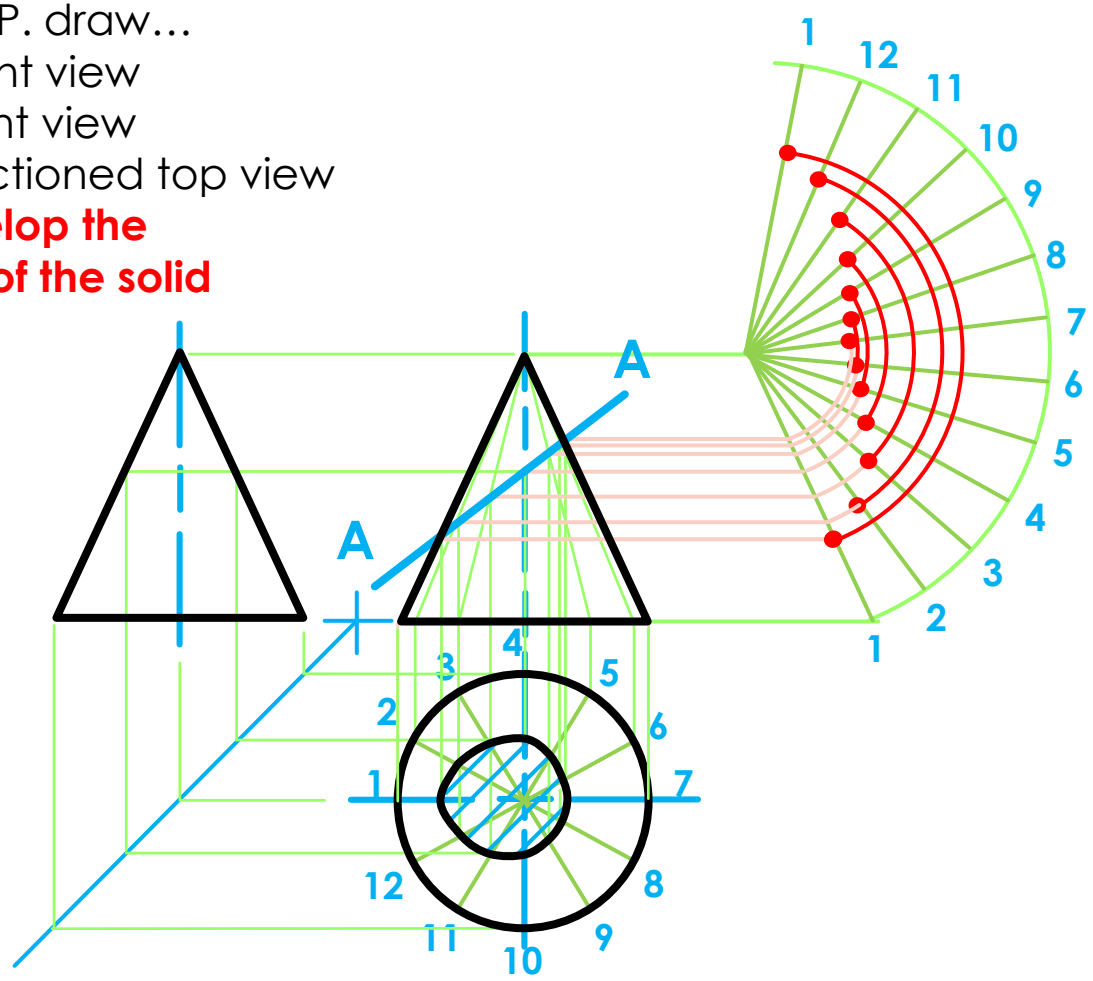
$= \frac{R}{S} \times \frac{360°}{1}$

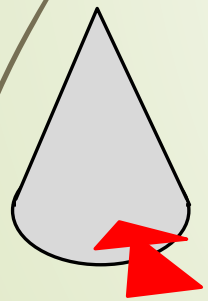
$= \frac{25}{60} \times \frac{360°}{1}$

$= 0{,}416666666 \times \frac{360°}{1}$

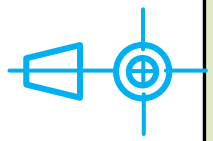
$= \frac{150°}{12}$

$= 12{,}5°$



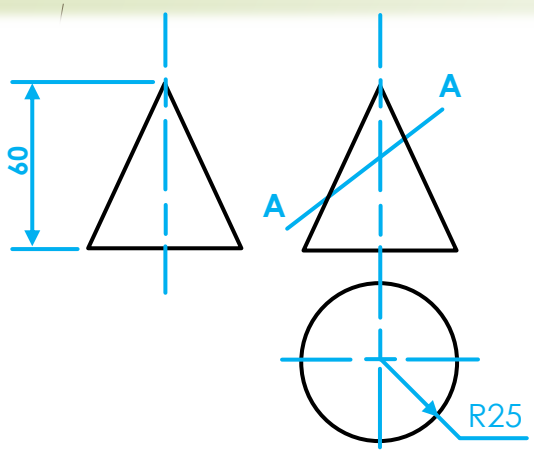


FRONT VIEW



education
Department of Education
FREE STATE PROVINCE

Application on polygons



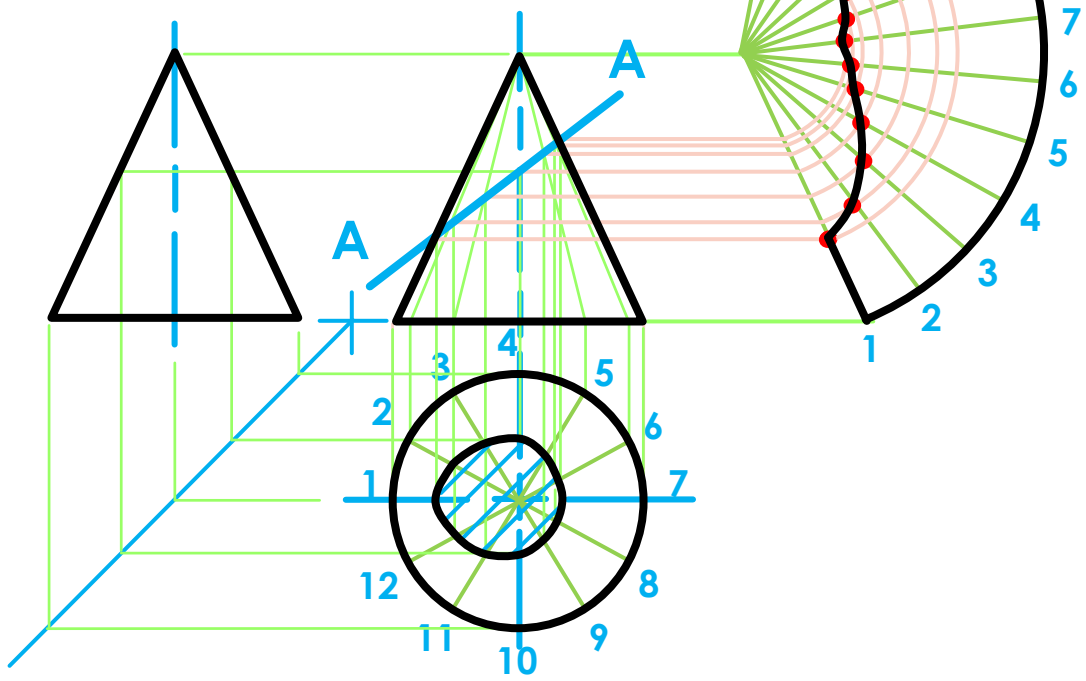
Given:

A cone 60 mm high.

Question:

In F.A.O.P. draw…

1. A front view
2. A right view
3. A sectioned top view
4. **Develop the surface of the solid**



Circumference of the circle:

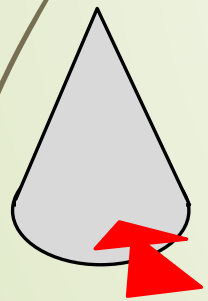
$$= \frac{R}{S} \times \frac{360°}{1}$$

$$= \frac{25}{60} \times \frac{360°}{1}$$

$$= 0{,}416666666 \times \frac{360°}{}$$

$$= \frac{150°}{12}$$

$$= 12{,}5°$$



FRONT VIEW