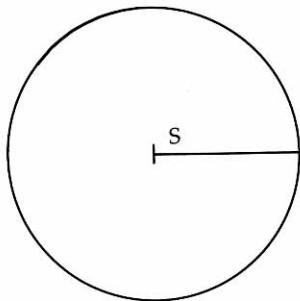
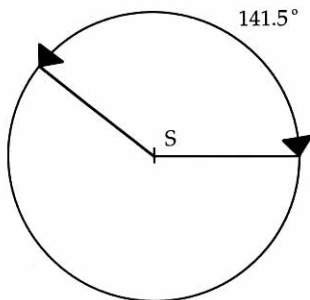


With your compass, describe a circle with the radius S equal to the slant height of the cone.



Using the protractor, set off an angle of 141.5° on the circle already drawn.



The angle of the pattern is found by using the formula:

$$\frac{\text{Radius of Base}}{\text{Slant Height}} \times 360^\circ$$

- or -

$$\frac{R}{S} \times 360^\circ$$

Returning to the illustration (b) we find that the radius of the base is 11 mm and the slant height is 28 mm. Plugging in those values we arrive at:

$$\frac{11}{28} \times 360^\circ$$

- or -

$$\frac{3960^\circ}{28}$$

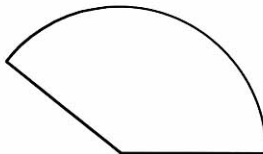
- or -

$$141.42^\circ$$

- rounding to a manageable number we arrive at -

$$141.5^\circ$$

This completes the development.



Digital Development

The same process can also be drawn - in a fraction of the time and with greater accuracy - on the computer in any vector drawing program. Using Adobe Illustrator, for example, begin by plotting a circle with a radius of 28 mm (height and width of 56 mm) using the Circle tool. Strike a line through the horizontal center using the Pen tool. Copy that line and then adjust the angle to 141.5° . This completes the development. Even my decade-old ZedCore DeskDraw, a dumbed-down version of Illustrator, allows me to do essentially the same thing, although in a slightly more roundabout fashion.