

Cone net - answers

Worked answers / Keep separate from the student sheet.

1. A right cone has base radius 6 mm and vertical height 13 mm. Find slant height and net sector angle.

Slant = $\sqrt{r^2 + h^2} = 14.31782$ mm. Sector = $360r/\text{slant} = 150.86094$ degrees.

2. A right cone has base radius 7 mm and vertical height 16 mm. Find slant height and net sector angle.

Slant = $\sqrt{r^2 + h^2} = 17.46425$ mm. Sector = $360r/\text{slant} = 144.29478$ degrees.

3. A right cone has base radius 8 mm and vertical height 19 mm. Find slant height and net sector angle.

Slant = $\sqrt{r^2 + h^2} = 20.61553$ mm. Sector = $360r/\text{slant} = 139.70052$ degrees.

4. A right cone has base radius 9 mm and vertical height 22 mm. Find slant height and net sector angle.

Slant = $\sqrt{r^2 + h^2} = 23.76973$ mm. Sector = $360r/\text{slant} = 136.30782$ degrees.

5. A right cone has base radius 10 mm and vertical height 25 mm. Find slant height and net sector angle.

Slant = $\sqrt{r^2 + h^2} = 26.92582$ mm. Sector = $360r/\text{slant} = 133.70064$ degrees.

6. A right cone has base radius 11 mm and vertical height 28 mm. Find slant height and net sector angle.

Slant = $\sqrt{r^2 + h^2} = 30.08322$ mm. Sector = $360r/\text{slant} = 131.63485$ degrees.