Surface Area of a cone: $πr(r+ \sqrt{h^{2}+r^{2}}) $

Volume of a cone: $\frac{1}{3}πr^{2}h$

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Radius | Height | Surface Area(SA) | Volume(V) | SA / V ratio |
| Cone with non-overlapping whorls |  |  |  |  |  |
| Sample Data | 0.5 | 18 | 29.07 | 4.71 | 6.17 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Radius | Height | Surface Area(SA) | Volume(V) | SA / V ratio |
| Cone with overlapping whorls |  |  |  |  |  |
| Sample Data | 1.25 | 3 | 17.67 | 4.71\* | 3.75 |

\* Recall that the volume is the same for each shell because the organism lives in the space that is represented by the interior of the original cone.