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| **F Unit 9: Perimeter, area and volume 2** | | **Year 11 Road Map** | | | | |
| In this unit you will learn about number and measures. The aims are as follows:  **LG1**: Knowledge  **LG2**: Application  **LG3**: Skills  Assessment Grades | | | | | | |
|  | **Learning Goals/Outcomes/Content** | | Video clips | R A G |  |  |
| 9 Perimeter, area and volume 2: circles, cylinders, cones and spheres | | | | | | |
| 1 | Recall the definition of a circle and identify, name and draw parts of a circle including tangent, chord and segment; | | 116, 149 |  |  |  |
| 2 | Recall and use formulae for the circumference of a circle and the area enclosed by a circle circumference of a circle = 2*πr* = *πd*, area of a circle = *πr*2; | | 117, 118 |  |  |  |
| 3 | Use *π* ≈ 3.142 or use the *π* button on a calculator; | | 117, 118 |  |  |  |
| 4 | Give an answer to a question involving the circumference or area of a circle in terms of *π*; | | 117, 118 |  |  |  |
| 5 | Find radius or diameter, given area or perimeter of a circles; | | 117, 118 |  |  |  |
| 6 | Find the perimeters and areas of semicircles and quarter-circles; | | 117, 118 |  |  |  |
| 7 | Calculate perimeters and areas of composite shapes made from circles Calculate arc lengths, angles and areas of sectors of circles; | | 167 |  |  |  |
| 8 | Find the surface area and volume of a cylinder; | | 118 |  |  |  |
| 9 | Find the surface area and volume of spheres, pyramids, cones and composite solids; | | 169, 170, 171 |  |  |  |
| 10 | Round answers to a given degree of accuracy. | | 32, 90 |  |  |  |
| Student’s comments and or questions | | | | | | |