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| **F Unit 17: Perimeter, area and volume 2** | **Road Map** | | | | | |
| In this unit you will learn about Geometry & Measures. The aims are as follows:  **LG1**: Knowledge  **LG2**: Application  **LG3**: Skills | Assessment Grades |  |  | | | |
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| **Themes** | **Learning Goals/Outcomes/Content** | | |  |  |  |
| 17 Perimeter, area and volume 2: circles, cylinders, cones and spheres | Recall the definition of a circle and identify, name and draw parts of a circle including tangent, chord and segment; | | |  |  |  |
| 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; | | |  |  |  |
| Use *π* ≈ 3.142 or use the *π* button on a calculator; | | |  |  |  |
| Give an answer to a question involving the circumference or area of a circle in terms of *π*; | | |  |  |  |
| Find radius or diameter, given area or perimeter of a circles; | | |  |  |  |
| Find the perimeters and areas of semicircles and quarter-circles; | | |  |  |  |
| Calculate perimeters and areas of composite shapes made from circles Calculate arc lengths, angles and areas of sectors of circles; | | |  |  |  |
| Find the surface area and volume of a cylinder; | | |  |  |  |
| Find the surface area and volume of spheres, pyramids, cones and composite solids; | | |  |  |  |
| Round answers to a given degree of accuracy. | | |  |  |  |

**Links:**

LG1: You will calculate area and circumferences of circles, and volumes and surface areas of cylinders, spheres and cones.

LG2: You will apply the process from this topic to calculate areas, perimeters and volumes of compound 2d and 3d shapes.

LG3: You will use your problem solving skills and mastery of area, perimeter and volume to solve word problems, often involving money.