

SURFACE AREA

Write a program to calculate the surface area of the following shapes: a square, a cube, a pyramid, and a cylinder. Ask the user which shape he would like to calculate the area for, and the dimensions that are needed for the calculation.

The formulæ for each shape follows.

- Area of a square : Length X Width
- Area of a cube: $6 \times (\text{Length of side})^2$
- Area of a pyramid: $(\text{Number of faces} \times \text{Length of base} \times \text{Height}) / 2$
- Area of cylinder : $2\pi \text{Radius} \times \text{Height}$

Skills Required: Sequence, Selection, Procedures, Function, Overloading, Interface Design, Error Trapping