**The Area.**

**Area = \pi \times \text{radius} \times \text{radius} \quad \Lambda = \pi r^2**

1). Use \( \pi = 3.14 \). Calculate the area of the circle to 2 d.p., if the **radius** is:
   - a). 10 cm  
   - b). 25 cm  
   - c). 66 cm  
   - d). 72 cm  
   - e). 0.5 cm
   - f). 9 Km  
   - g). 6.5 mm  
   - h). 90.2 Km  
   - i). 45 m  
   - j). 550 m
   - k). 30.55 mm  
   - l). 2.01 cm  
   - m). 2.5 Km  
   - n). 405 Km  
   - o). 80 mm
   - p). 23 cm  
   - q). 4.5 Km  
   - r). 3.25 m  
   - s). 0.75 cm  
   - t). 4.25 m

2). Measure the radii of each of these circles and calculate their areas to 1 d.p. Take \( \pi = 3.14 \).

![Diagram of circles with radii](image)

3). Calculate the area of the circle to 2 d.p., using the \( \pi \) button, if the **diameter** is:
   - a). 30 mm  
   - b). 26 cm  
   - c). 88 m  
   - d). 120 cm  
   - e). 256 Km
   - f). 2500 Km  
   - g). 84.6 mm  
   - h). 0.2 Km  
   - i). 48.4 m  
   - j). 32.5 m
   - k). 0.1 mm  
   - l). 6 cm  
   - m). 220 Km  
   - n). 50 Km  
   - o). 43 mm
   - p). 8 ft  
   - q). 5.5 miles  
   - r). 22.25 ft  
   - s). 7.5 yds  
   - t). 2000 inches

4). Measure the diameters of each of these circles and calculate their areas to 1 d.p.
   Take \( \pi = 3.142 \).

![Diagram of circles with diameters](image)
5). Find the area of the following circles. Take π = 3.14. Leave the answer to 3 sig. figs.
   a). radius = 7 cm    b). radius = 28 m    c). radius = 1.4 Km    d). radius = 5.6 m
   c). diam. = 28 m    f). diam. = 112 mm  g). diam. = 84 cm    h). diam. = 3.5 m
   i). radius = 490 m  j). radius = 0.49 cm  k). diam. = 7 mm   l). diam. 24.5 Km
   m). radius = 1.75 cm n). diam. = 168 Km o). radius = 1.33 m  p). diam. = 119 yds
   q). radius = 0.28 m r). radius = 3500 ft s). diam. = 0.47 m  t). radius = 630 miles.

   For the following questions use calculator π and leave answers to a sensible degree of accuracy.

6). The minute hand on a watch is 2.5 cm long. Over what area does this hand travel in 1 hour?

7). A farmer has a circular field which is 170 metres across. He wishes to cover it with plastic
   sheeting. What area of sheeting does he require?

8). A circular table is 1.8 metres across. What is the area of the table top?

9). Rover is tied to a post in the middle of the garden with a rope 12 ft long. On what area of
   the garden can poor little Rover walk?

10). By measuring, what is the area in cm² of one side of a

11). The following shapes are made up of full circles, semi-circles or quarter circles. Find
    the area of each of the following shapes.
    d).  24 cm  9 cm    e). 7 m    f). 15 m
    g).  9 cm    h). 21 mm
    i).  21 mm    j). 9 m