

# Circles 1.

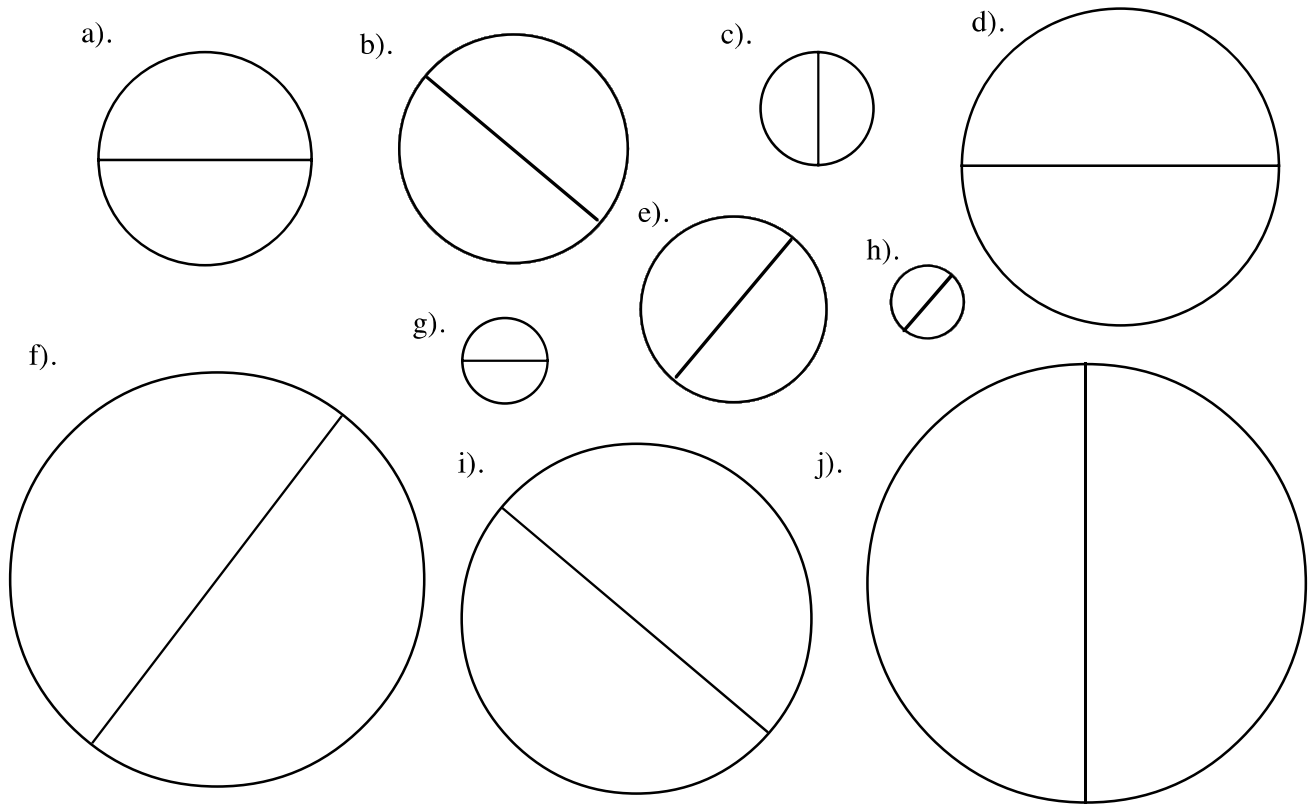


## The Circumference.

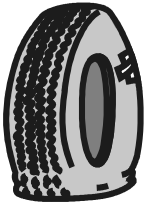


**Circumference =  $\pi$  x diameter**       **$C = \pi d$**   
**Circumference = 2 x  $\pi$  x radius**       **$C = 2\pi r$**

- 1). Use  $\pi = 3.14$ . Calculate the circumference of each circle to 2 d.p., if the diameter is :
- a). 12 cm    b). 20 cm    c). 35 cm    d). 90 cm    e). 2 cm  
 f). 6.5 cm    g). 10.5 mm    h). 0.5 Km    i). 105.1 m    j). 6.35 m  
 k). 88.15 mm    l). 80.05 cm    m). 25.6 Km    n). 23.34 Km    o). 323 mm  
 p). 4502 cm    q). 0.125 Km    r). 1.625 m    s). 11.65 cm    t). 3045 m
- 2). Measure the diameter of each of these circles and calculate their circumferences to 1 d.p..  
 Take  $\pi = 3.142$ .

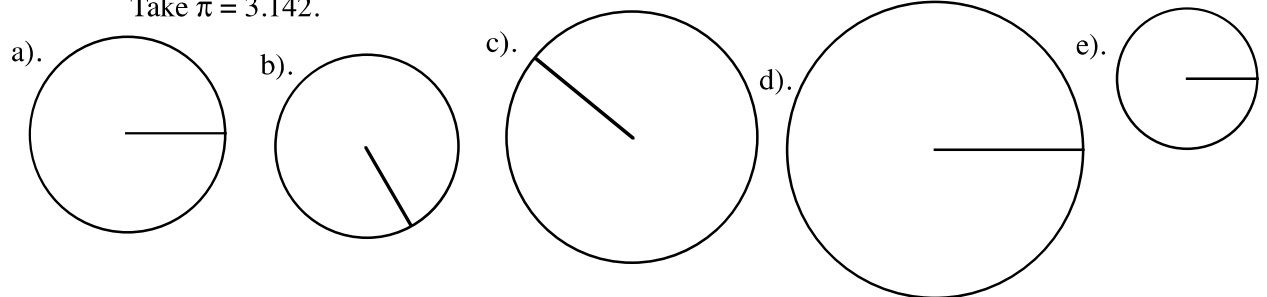


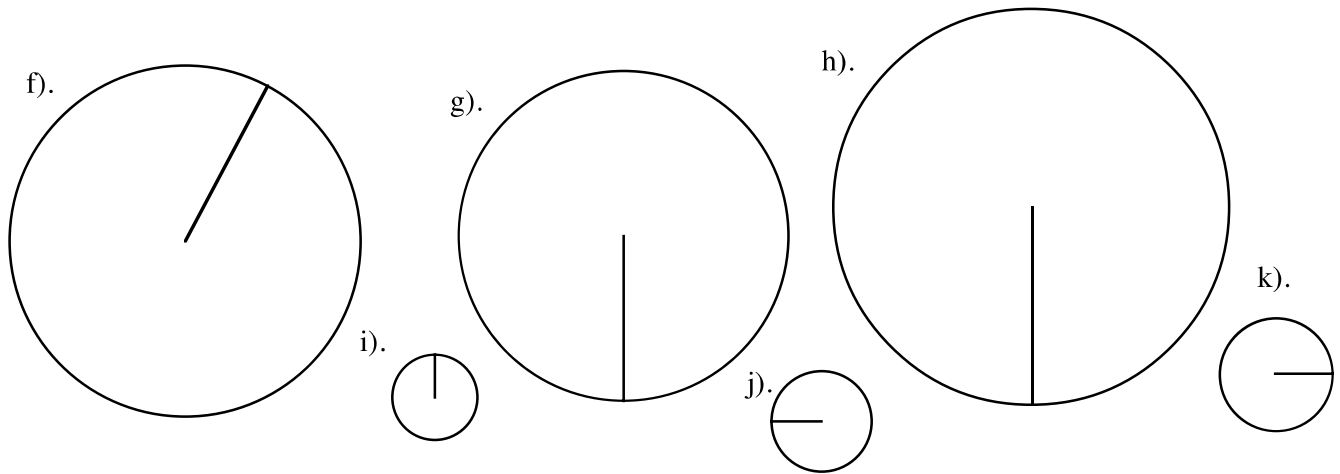
- 3). Using the  $\pi$  button on your calculator, calculate the circumference of these circles to 2 d.p. when the radius is:



- a). 10 cm    b). 55 cm    c). 12 m    d). 560 m    e). 490 Km  
 f). 0.6 mm    g). 0.125 m    h). 35.8 mm    i). 345 Km    j). 80.04 Km  
 k). 0.04 m    l). 0.012 Km    m). 23.99 cm    n). 1000 Km    o). 987.6 m  
 p). 64 ft    q). 20.25 yds    r). 4.75 miles    s). 50 in    t). 6.5 ft.

- 4). Measure the radii of each of these circles and calculate their circumferences to 3 d.p..  
 Take  $\pi = 3.142$ .





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

- 5). The minute hand on a watch is 1.5 cm long. What distance does the tip of this hand travel through in
  - a). 1 hour ?
  - b). 1 day ?
- 6). A farmer has a circular field which is 250 metres across. He wishes to put a fence around the field. What length of fencing does he require ?
- 7). A bicycle tyre has a 40 cm radius.
  - a). If the wheel travels through 1 complete revolution, how far has the bicycle travelled?
  - b). The wheel rotates 120 times, how far has the bicycle travelled ?
- 8). A car tyre has a 55 cm radius.
  - a). If the wheel travels through 1 complete revolution, how far has the car travelled?
  - b). The wheel rotates 2500 times, how far has the car travelled
    - i). in cm,
    - ii). in m,
    - iii). in Km ?



- 9). The following shapes are made up of full circles, semi-circles or quarter circles. Find the circumference of each of the following shapes.

