



## Englische Übungen zu Berechnungen am Kreis

1. The circle in the middle of a soccer field has the radius  $r = 9,5$  m. Find its perimeter.
2. Find **1)** the perimeter and **2)** the area of a circle with the given radius.
  - a.  $r = 2,5$  cm
  - b.  $r = 14,6$  m
  - c.  $r = 2,45$  km
  - d.  $r = 0,12$  m
  - e.  $r = 6,04$  m
3. Find **1)** the perimeter and **2)** the area of the given sector.
  - a.  $r = 7,6$  cm;  $\alpha = 82^\circ$
  - b.  $r = 6,9$  cm;  $b = 12,2$  cm
  - c.  $b = 17,4$  cm;  $\alpha = 104^\circ$
4. Calculate **1)** the perimeter and **2)** the area of the annulus formed by two concentric circles with  $r_1 = 6,4$  cm and  $r_2 = 4,8$  cm.

## Vocabulary

Englisch	Deutsch
soccer field	Fußballfeld
perimeter	Umfang
area	Fläche
sector	Kreis Sektor
annulus	Kreisring
concentric	konzentrisch





## Solutions

1.  $U \approx 59,69 \text{ m}$  (59,6902 ...)
  
2.
  - a.  $U \approx 15,71 \text{ cm}$  (15,7079 ...),  $A \approx 19,63 \text{ cm}^2$  (19,6349 ...)
  - b.  $U \approx 91,73 \text{ m}$  (91,7345 ...),  $A \approx 669,66 \text{ m}^2$  (669,6618 ...)
  - c.  $U \approx 15,71 \text{ km}$  (15,7079 ...),  $A \approx 19,63 \text{ km}^2$  (19,6349 ...)
  - d.  $U \approx 0,75 \text{ m}$  (0,7539 ...),  $A \approx 0,05 \text{ m}^2$  (0,0452 ...)
  - e.  $U \approx 37,70 \text{ m}$  (37,6991 ...),  $A \approx 114,61 \text{ m}^2$  (114,6103 ...)
  
3.
  - a.  $U \approx 26,08 \text{ cm}$  (26,0768 ...),  $A \approx 41,33 \text{ cm}^2$  (41,3321 ...)
  - b.  $U = 26 \text{ cm}$ ,  $A = 42,09 \text{ cm}$
  - c.  $U \approx 36,57 \text{ cm}$  (36,5720 ...),  $A \approx 83,40 \text{ cm}^2$  (83,3983 ...)
  
4.  $U \approx 17,48 \text{ cm}$  (17,4832 ...),  $A \approx 56,30 \text{ cm}^2$  (56,2973 ...)

