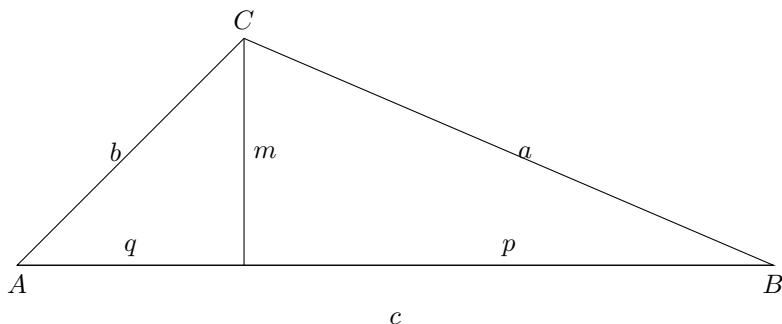


Magasság- és befogótétel, kör részei

1. Határozd meg az ABC derékszögű háromszög (derékszög a C csúcsnál) hiányzó adataid, ha ismert...



a) $c = 83, m = 25,81$	$\begin{matrix} 71 = b \\ 6 = d \\ 28,87 = q \\ 27,33 = a \end{matrix}$	b) $b = 39,31, q = 15$	$\begin{matrix} 88 = d \\ 36,33 = m \\ 103 = c \\ 95,21 = a \end{matrix}$	c) $a = 44,41, c = 58$	$\begin{matrix} 72 = b \\ 34 = d \\ 28,57 = m \\ 37,31 = a \end{matrix}$
d) $a = 120,20, b = 117,37$	$\begin{matrix} 78 = b \\ 98 = d \\ 83,98 = m \\ 168 = c \end{matrix}$	e) $a = 122,66, q = 92$	$\begin{matrix} 58 = d \\ 88,43 = m \\ 177 = c \\ 127,61 = b \end{matrix}$	f) $b = 44,12, q = 33$	$\begin{matrix} 97 = d \\ 29,29 = m \\ 59 = c \\ 39,17 = a \end{matrix}$
g) $a = 54,22, q = 68$	$\begin{matrix} 03 = d \\ 45,17 = m \\ 96 = c \\ 81,63 = b \end{matrix}$	h) $b = 84,20, c = 139$	$\begin{matrix} 51 = b \\ 88 = d \\ 66,99 = m \\ 110,60 = a \end{matrix}$	i) $p = 32, q = 11$	$\begin{matrix} m = 18,76 \\ c = 43 \\ b = 21,75 \\ a = 37,09 \end{matrix}$
j) $a = 129,75, q = 91$	$\begin{matrix} 79 = d \\ 11,50 = m \\ 183 = c \\ 129,05 = b \end{matrix}$	k) $a = 63,45, q = 89$	$\begin{matrix} 33 = d \\ m = 54,19 \\ c = 122 \\ b = 104,20 \end{matrix}$	l) $b = 117,35, q = 81$	$\begin{matrix} d = 89 \\ m = 84,91 \\ c = 170 \\ a = 123 \end{matrix}$
m) $c = 65, p = 61$	$\begin{matrix} 4 = b \\ m = 15,62 \\ b = 16,12 \\ a = 62,97 \end{matrix}$	n) $b = 21,21, q = 10$	$\begin{matrix} 35 = d \\ m = 18,71 \\ c = 45 \\ a = 39,69 \end{matrix}$	o) $a = 46,31, q = 16$	$\begin{matrix} d = 39 \\ m = 24,98 \\ c = 55 \\ b = 29,66 \end{matrix}$
p) $a = 72,83, b = 74,24$	$\begin{matrix} 53 = b \\ 51 = d \\ 51,99 = m \\ 104 = c \end{matrix}$	q) $c = 86, p = 47$	$\begin{matrix} 39 = b \\ m = 42,81 \\ b = 57,91 \\ a = 63,58 \end{matrix}$	r) $b = 7,94, q = 3$	$\begin{matrix} d = 18 \\ m = 7,35 \\ c = 21 \\ a = 19,44 \end{matrix}$
s) $c = 74, p = 10$	$\begin{matrix} 64 = b \\ m = 25,30 \\ b = 68,82 \\ a = 27,20 \end{matrix}$	t) $b = 109,60, q = 77$	$\begin{matrix} 79 = d \\ m = 77,99 \\ c = 156 \\ a = 111,01 \end{matrix}$	u) $p = 78, q = 92$	$\begin{matrix} m = 84,71 \\ c = 170 \\ b = 125,06 \\ a = 115,15 \end{matrix}$

v) $a = 65,97, m = 16$

$$\begin{matrix} \uparrow = b \\ \uparrow 9 = d \\ 89 = c \\ \uparrow 16,49 = b \end{matrix}$$

w) $m = 92,81, p = 99$

$$\begin{matrix} \uparrow 8 = b \\ 981 = c \\ \uparrow 127,21 = b \\ \uparrow 135,70 = a \end{matrix}$$

x) $c = 111, m = 55,48$

$$\begin{matrix} \uparrow 57 = b \\ \uparrow 57 = d \\ \uparrow 79,54 = b \\ \uparrow 77,42 = a \end{matrix}$$

2. Határozd meg az r sugarú kör α középponti szögéhez tartozó körív hosszát és körcikk területét!

a) $r = 11, \alpha = 137^\circ$

$$\begin{matrix} \uparrow 114,11 = l \\ \uparrow 26,30 = t \end{matrix}$$

b) $r = 10, \alpha = 72^\circ$

$$\begin{matrix} \uparrow 2,79 = l \\ \uparrow 12,57 = t \end{matrix}$$

c) $r = 7, \alpha = 211^\circ$

$$\begin{matrix} \uparrow 90,22 = l \\ \uparrow 25,78 = t \end{matrix}$$

d) $r = 15, \alpha = 143^\circ$

$$\begin{matrix} \uparrow 280,78 = l \\ \uparrow 37,44 = t \end{matrix}$$

e) $r = 10, \alpha = 330^\circ$

$$\begin{matrix} \uparrow 287,98 = l \\ \uparrow 57,60 = t \end{matrix}$$

f) $r = 2, \alpha = 24^\circ$

$$\begin{matrix} \uparrow 0,84 = l \\ \uparrow 0,84 = t \end{matrix}$$

g) $r = 13, \alpha = 351^\circ$

$$\begin{matrix} \uparrow 219 = l \\ \uparrow 79,64 = t \end{matrix}$$

h) $r = 8, \alpha = 110^\circ$

$$\begin{matrix} \uparrow 61,44 = l \\ \uparrow 15,36 = t \end{matrix}$$

i) $r = 7, \alpha = 231^\circ$

$$\begin{matrix} \uparrow 98,78 = l \\ \uparrow 28,22 = t \end{matrix}$$

j) $r = 18, \alpha = 285^\circ$

$$\begin{matrix} \uparrow 208 = l \\ \uparrow 89,54 = t \end{matrix}$$

k) $r = 18, \alpha = 154^\circ$

$$\begin{matrix} \uparrow 435,42 = l \\ \uparrow 48,38 = t \end{matrix}$$

l) $r = 5, \alpha = 33^\circ$

$$\begin{matrix} \uparrow 7,20 = l \\ \uparrow 2,88 = t \end{matrix}$$

m) $r = 7, \alpha = 154^\circ$

$$\begin{matrix} \uparrow 59,85 = l \\ \uparrow 18,81 = t \end{matrix}$$

n) $r = 18, \alpha = 158^\circ$

$$\begin{matrix} \uparrow 446,73 = l \\ \uparrow 49,64 = t \end{matrix}$$

o) $r = 4, \alpha = 93^\circ$

$$\begin{matrix} \uparrow 12,99 = l \\ \uparrow 6,49 = t \end{matrix}$$

p) $r = 18, \alpha = 88^\circ$

$$\begin{matrix} \uparrow 248,81 = l \\ \uparrow 27,65 = t \end{matrix}$$

q) $r = 19, \alpha = 182^\circ$

$$\begin{matrix} \uparrow 573,36 = l \\ \uparrow 60,35 = t \end{matrix}$$

r) $r = 18, \alpha = 288^\circ$

$$\begin{matrix} \uparrow 814,30 = l \\ \uparrow 90,48 = t \end{matrix}$$

s) $r = 11, \alpha = 335^\circ$

$$\begin{matrix} \uparrow 353,73 = l \\ \uparrow 64,32 = t \end{matrix}$$

t) $r = 1, \alpha = 92^\circ$

$$\begin{matrix} \uparrow 0,80 = l \\ \uparrow 1,61 = t \end{matrix}$$

u) $r = 10, \alpha = 334^\circ$

$$\begin{matrix} \uparrow 291,47 = l \\ \uparrow 58,29 = t \end{matrix}$$

v) $r = 13, \alpha = 217^\circ$

$$\begin{matrix} \uparrow 203 = l \\ \uparrow 49,24 = t \end{matrix}$$

w) $r = 8, \alpha = 144^\circ$

$$\begin{matrix} \uparrow 80,42 = l \\ \uparrow 20,11 = t \end{matrix}$$

x) $r = 17, \alpha = 48^\circ$

$$\begin{matrix} \uparrow 121,06 = l \\ \uparrow 14,24 = t \end{matrix}$$

3. Határozd meg a kör sugarát, ha tudjuk, hogy benne az α középponti szöghöz i hosszúságú körív tartozik.

a) $\alpha = 137^\circ, i = 26,30$

$$\uparrow 11 = r$$

b) $\alpha = 72^\circ, i = 12,57$

$$\uparrow 10 = r$$

c) $\alpha = 211^\circ, i = 81,02$

$$\uparrow 22 = r$$

d) $\alpha = 271^\circ, i = 113,52$

$$\uparrow 24 = r$$

e) $\alpha = 330^\circ, i = 86,39$

$$\uparrow 15 = r$$

f) $\alpha = 24^\circ, i = 0,84$

$$\uparrow 2 = r$$

g) $\alpha = 351^\circ, i = 79,64$

$$\uparrow 13 = r$$

h) $\alpha = 110^\circ, i = 15,36$

$$\uparrow 8 = r$$

i) $\alpha = 231^\circ, i = 28,22$

$$\uparrow 7 = r$$

j) $\alpha = 342^\circ, i = 161,16$

$$\uparrow 27 = r$$

k) $\alpha = 285^\circ, i = 89,54$

$$\uparrow 18 = r$$

l) $\alpha = 92^\circ, i = 46,57$

$$\uparrow 29 = r$$

m) $\alpha = 154^\circ, i = 48,38$

$$\uparrow 18 = r$$

n) $\alpha = 33^\circ, i = 2,88$

$$\uparrow 5 = r$$

o) $\alpha = 154^\circ, i = 18,81$

$$\uparrow 7 = r$$

p) $\alpha = 158^\circ, i = 49,64$

$$\uparrow 18 = r$$

q) $\alpha = 324^\circ, i = 141,37$

$$\uparrow 25 = r$$

r) $\alpha = 114^\circ, i = 57,70$

$$\uparrow 29 = r$$

s) $\alpha = 307^\circ, i = 128,60$ t) $\alpha = 242^\circ, i = 92,92$ u) $\alpha = 335^\circ, i = 64,32$

v) $\alpha = 92^\circ, i = 1,61$ w) $\alpha = 42^\circ, i = 19,79$ x) $\alpha = 13^\circ, i = 3,18$

4. Határozd meg a kör sugarát, ha tudjuk, hogy benne az α középponti szöghöz t területű körcikk tartozik.

a) $\alpha = 137^\circ, t = 144,66$ b) $\alpha = 72^\circ, t = 62,83$ c) $\alpha = 211^\circ, t = 891,20$

d) $\alpha = 271^\circ, t = 1362,19$ e) $\alpha = 330^\circ, t = 647,95$ f) $\alpha = 24^\circ, t = 0,84$

g) $\alpha = 351^\circ, t = 517,66$ h) $\alpha = 110^\circ, t = 61,44$ i) $\alpha = 231^\circ, t = 98,78$

j) $\alpha = 342^\circ, t = 2175,71$ k) $\alpha = 285^\circ, t = 805,82$ l) $\alpha = 92^\circ, t = 675,20$

m) $\alpha = 154^\circ, t = 435,42$ n) $\alpha = 33^\circ, t = 7,20$ o) $\alpha = 154^\circ, t = 65,85$

p) $\alpha = 158^\circ, t = 446,73$ q) $\alpha = 324^\circ, t = 1767,15$ r) $\alpha = 114^\circ, t = 836,66$

s) $\alpha = 307^\circ, t = 1543,15$ t) $\alpha = 242^\circ, t = 1022,13$ u) $\alpha = 335^\circ, t = 353,73$

v) $\alpha = 92^\circ, t = 0,80$ w) $\alpha = 42^\circ, t = 267,19$ x) $\alpha = 13^\circ, t = 22,24$