

## Az összefüggések és a mértékegységek áttekintése

### Hosszúságegységek:

km, m, dm, cm, mm

### Területegységek:

km<sup>2</sup>, ha, a, m<sup>2</sup>, dm<sup>2</sup>, cm<sup>2</sup>, mm<sup>2</sup>

### Térfogategységek:

km<sup>3</sup>, m<sup>3</sup>, dm<sup>3</sup>, cm<sup>3</sup>, mm<sup>3</sup>

hl, l, dl, cl, ml

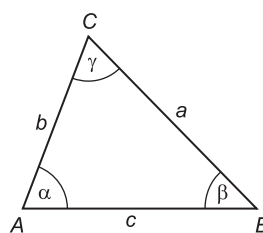
### Az időmérés egységei:

nap, óra (h), perc (min), másodperc (s)

### Tömegegységek:

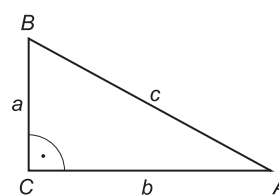
t, kg, dag, g, mg

### A háromszög belső szögei



$$\alpha + \beta + \gamma = 180^\circ$$

### Derékszögű háromszög

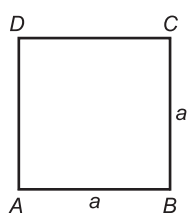


$$c^2 = a^2 + b^2$$

$$T = \frac{a \cdot b}{2}$$

## Síkalakzatok kerülete és területe

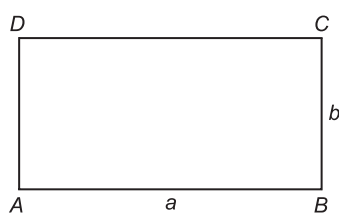
### Négyzet



$$k = 4 \cdot a$$

$$T = a^2$$

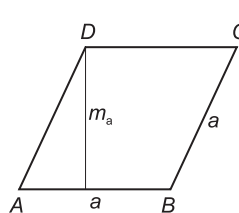
### Téglalap



$$k = 2 \cdot (a + b)$$

$$T = a \cdot b$$

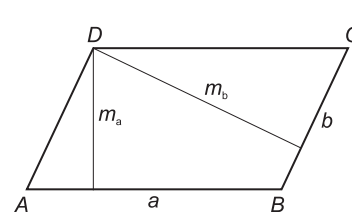
### Rombusz



$$k = 4 \cdot a$$

$$T = a \cdot m_a$$

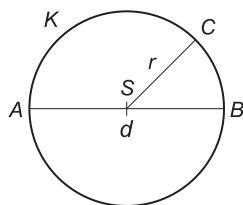
### Romboid



$$k = 2 \cdot (a + b)$$

$$T = a \cdot m_a = b \cdot m_b$$

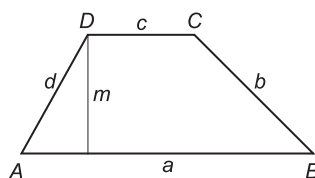
### Kör



$$k = 2 \cdot \pi \cdot r = \pi \cdot d$$

$$T = \pi \cdot r^2$$

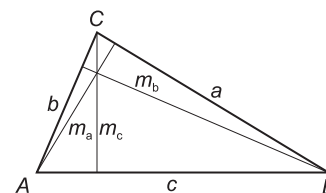
### Trapéz



$$k = a + b + c + d$$

$$T = \frac{(a + c) \cdot m}{2}$$

### Háromszög

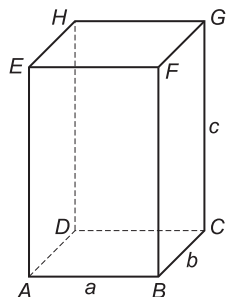


$$k = a + b + c$$

$$T = \frac{a \cdot m_a}{2} = \frac{b \cdot m_b}{2} = \frac{c \cdot m_c}{2}$$

## Testek térfogata és felszíne

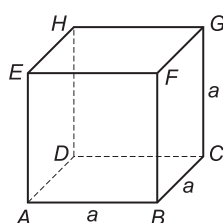
### Téglatest



$$V = a \cdot b \cdot c$$

$$F = 2 \cdot (a \cdot b + b \cdot c + a \cdot c)$$

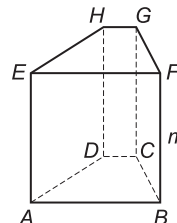
### Kocka



$$V = a^3$$

$$F = 6 \cdot a^2$$

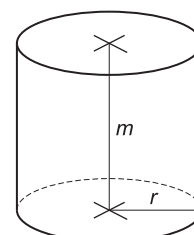
### Hasáb



$$V = T_a \cdot m$$

$$F = 2 \cdot T_a + Q$$

### Henger



$$V = T_a \cdot m = \pi \cdot r^2 \cdot m$$

$$F = 2 \cdot T_a + Q$$

$$F = 2 \cdot \pi \cdot r^2 + 2 \cdot \pi \cdot r \cdot m$$

$T_a$  – az alaplapp területe,  $Q$  – a palást területe