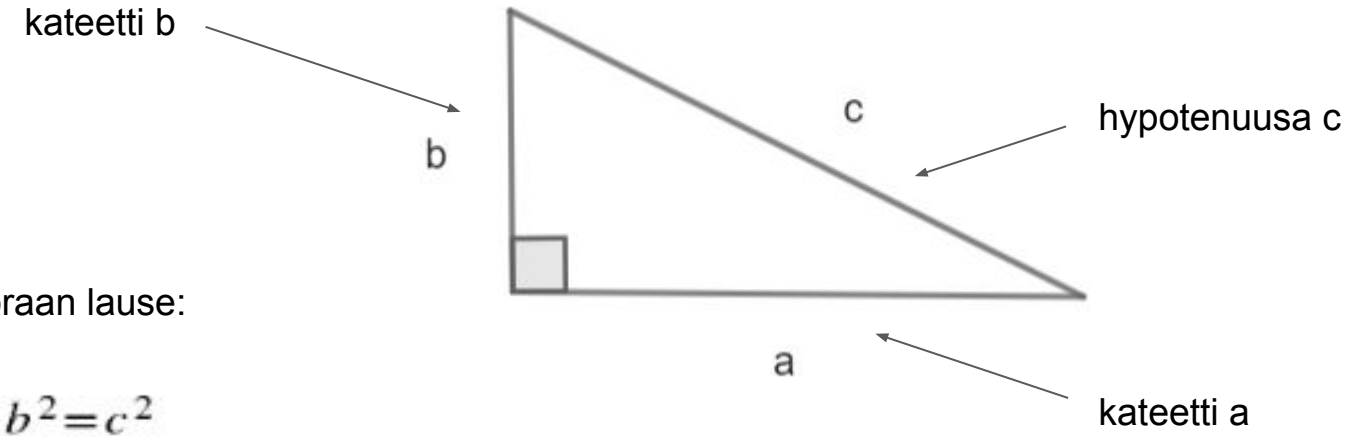
Pythagoraan lause

Suorakulmainen kolmio ja pythagoraan lause



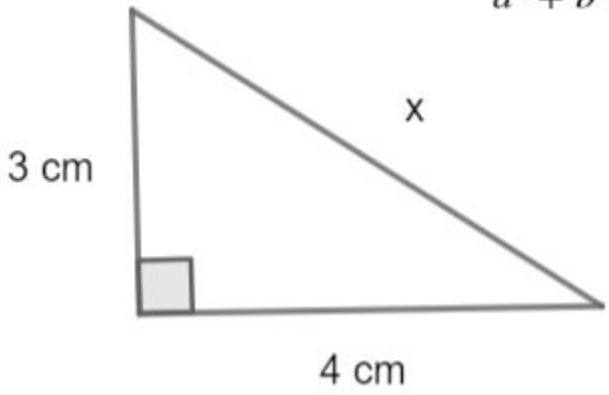
Pythagoraan lause:

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

Esimerkki 1. Hypotenuusan ratkaiseminen

Pythagoraan lause:

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



$4^2 + 3^2 = x^2$

$x^2 = 16 + 9$

$x^2 = 25 \quad \| \sqrt{}$

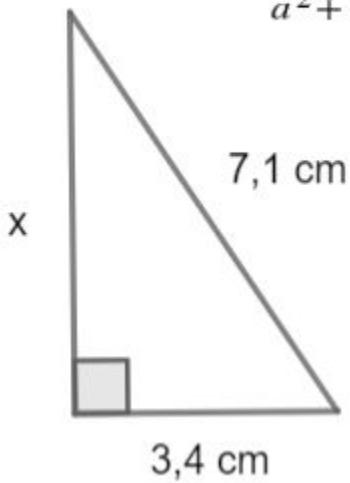
$x = 5$

Vastaus: Hypotenuusan pituus on 5 cm

Esimerkki 2. Kateetin ratkaiseminen

Pythagoraan lause:

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



$(3,4\ cm)^2 + x^2 = (7,1\ cm)^2$

$x^2 = (7,1\ cm)^2 - (3,4\ cm)^2 \quad \| \sqrt{\ }$

$x = \sqrt{(7,1\ cm)^2 - (3,4\ cm)^2}$

$x = 6,23 \ldots cm \approx 6,2\ cm$

Vastaus: Kateetin pituus on 6,2 cm