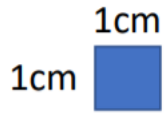


Zamiana jednostek pola - ćwiczenia



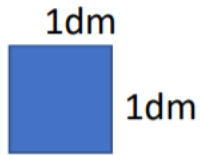


1) 1cm^2



$$1\text{cm}^2 = 1\text{cm} \cdot 1\text{cm} = 10\text{mm} \cdot 10\text{mm} = 100\text{mm}^2$$

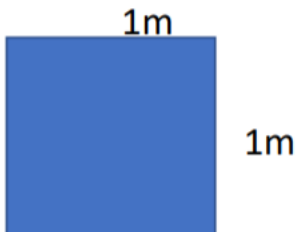
2) 1dm^2



$$1\text{dm}^2 = 1\text{dm} \cdot 1\text{dm} = 10\text{cm} \cdot 10\text{cm} = 100\text{cm}^2$$

$$1\text{dm}^2 = 1\text{dm} \cdot 1\text{dm} = 100\text{mm} \cdot 100\text{mm} = 10000\text{mm}^2$$

3) 1m^2



$$1\text{m}^2 = 1\text{m} \cdot 1\text{m} = 10\text{dm} \cdot 10\text{dm} = 100\text{dm}^2$$

$$1\text{m}^2 = 1\text{m} \cdot 1\text{m} = 100\text{cm} \cdot 100\text{cm} = 10000\text{cm}^2$$



a) $2 \text{ m}^2 = \text{ } \text{ cm}^2$

b) $16,5 \text{ m}^2 = \text{ } \text{ cm}^2$

c) $11 \text{ dm}^2 = \text{ } \text{ cm}^2$

a) $2 \text{ m}^2 = 2 \cdot 1 \text{ m} \cdot 1 \text{ m} = 2 \cdot 100 \text{ cm} \cdot 100 \text{ cm} = 20\,000 \text{ cm}^2$

b) $16,5 \text{ m}^2 = 16,5 \cdot 1 \text{ m} \cdot 1 \text{ m} = 16,5 \cdot 100 \text{ cm} \cdot 100 \text{ cm} = 165\,000 \text{ cm}^2$

c) $11 \text{ dm}^2 = 11 \cdot 1 \text{ dm} \cdot 1 \text{ dm} = 11 \cdot 10 \text{ cm} \cdot 10 \text{ cm} = 1\,100 \text{ cm}^2$

Zad.1 str.187

1. a) Zamień na milimetry kwadratowe:

$$4,5 \text{ cm}^2 \quad 3 \text{ cm}^2 \quad 10,3 \text{ cm}^2$$

b) Zamień na centymetry kwadratowe:

$$4 \text{ dm}^2 \quad 6,5 \text{ dm}^2 \quad 7 \text{ m}^2 \quad 2,5 \text{ m}^2$$

$$\text{a) } 4,5 \text{ cm}^2 = 4,5 \cdot 1 \text{ cm} \cdot 1 \text{ cm} = 4,5 \cdot 10 \text{ mm} \cdot 10 \text{ mm} = 450 \text{ mm}^2$$

$$3 \text{ cm}^2 = 3 \cdot 1 \text{ cm} \cdot 1 \text{ cm} = 3 \cdot 10 \text{ mm} \cdot 10 \text{ mm} = 300 \text{ mm}^2$$

$$10,3 \text{ cm}^2 = 10,3 \cdot 1 \text{ cm} \cdot 1 \text{ cm} = 10,3 \cdot 10 \text{ mm} \cdot 10 \text{ mm} = 1030 \text{ mm}^2$$

$$\text{b) } 4 \text{ dm}^2 = 4 \cdot 1 \text{ dm} \cdot 1 \text{ dm} = 4 \cdot 10 \text{ cm} \cdot 10 \text{ cm} = 400 \text{ cm}^2$$

$$6,5 \text{ dm}^2 = 6,5 \cdot 1 \text{ dm} \cdot 1 \text{ dm} = 6,5 \cdot 10 \text{ cm} \cdot 10 \text{ cm} = 650 \text{ cm}^2$$

$$7 \text{ m}^2 = 7 \cdot 1 \text{ m} \cdot 1 \text{ m} = 7 \cdot 100 \text{ cm} \cdot 100 \text{ cm} = 70\,000 \text{ cm}^2$$

$$2,5 \text{ m}^2 = 2,5 \cdot 1 \text{ m} \cdot 1 \text{ m} = 2,5 \cdot 100 \text{ cm} \cdot 100 \text{ cm} = 25\,000 \text{ cm}^2$$

$1a = 100m^2$

$1ha = 10000m^2$

$1ha = 100a$

Ściaga!

Zad.3 str.187

3. Zamień:

a) na metry kwadratowe: 15 a 4 ha 12 ha 3,5 a 1,3 ha

b) na ary: 200 m² 300 m² 450 m² 5000 m² 5500 m²

c) na hektary: 70000 m² 100000 m² 5000 m² 250 a

a) $15a = 15 \cdot 100 = 1500 m^2$

$4ha = 4 \cdot 10\ 000 = 40\ 000 m^2$

$12ha = 12 \cdot 10\ 000 = 120\ 000 m^2$

$3,5 a = 3,5 \cdot 100 = 350 m^2$

$1,3ha = 1,3 \cdot 10\ 000 = 13000 m^2$

$a \xrightarrow{\cdot 100} m^2$

$ha \xrightarrow{\cdot 10000} m^2$

$ha \xrightarrow{\cdot 100} a$

$m^2 \xrightarrow{: 100} a$

$a \xrightarrow{: 100} ha$

$m^2 \xrightarrow{: 10000} ha$

$$1a = 100m^2$$

$$1ha = 10000m^2$$

$$1ha = 100a$$

Ściaga!

Zad.3 str.187

3. Zamień:

a) na metry kwadratowe: 15 a 4 ha 12 ha 3,5 a 1,3 ha

b) na ary: 200 m² 300 m² 450 m² 5000 m² 5500 m²

c) na hektary: 70000 m² 100000 m² 5000 m² 250 a

$$b) 200m^2 = 200 : 100 = 2a$$

$$300m^2 = 300 : 100 = 3a$$

$$450m^2 = 450 : 100 = 4,5a$$

$$5000m^2 = 5000 : 100 = 50a$$

$$c) 70\ 000\ m^2 = 70\ 000 : 10\ 000 = 7ha$$

$$a \xrightarrow{\cdot 100} m^2$$

$$ha \xrightarrow{\cdot 10000} m^2$$

$$ha \xrightarrow{\cdot 100} a$$

$$m^2 \xrightarrow{: 100} a$$

$$a \xrightarrow{: 100} ha$$

$$m^2 \xrightarrow{: 10000} ha$$

Zad.dom dokończ zad.3 str 187
Kartkówka z zamiany jednostek
w czwartek

Ciekawostka

W osiemnastowiecznej Polsce stosowano inne miary pola niż obecnie. Na przykład jednostkami miar powierzchni stosowanymi dla gruntów rolnych były:

- kopanka 19,95 m²
- laska kwadratowa - 44 kopanki,
- kwadratowy pręt większy - 2,5 laski kwadratowej,
- wertel - 18 kwadratowych prętów większych,
- morga - 123 wertela - 5985 m².