**KLASA VII a i b**

**15.06.2020 i 19.06.2020**

**Temat: Działania na pierwiastkach.**

$\sqrt{a⋅b}=\sqrt{a}⋅\sqrt{b}$dla a ≥ 0 i b ≥ 0

$\sqrt[3]{a⋅b}=\sqrt[3]{a}⋅\sqrt[3]{b}$dla a, b dowolne

$\sqrt{\frac{a}{b}}=\frac{\sqrt{a}}{\sqrt{b}}$dla a ≥ 0 i b > 0

$\sqrt[3]{\frac{a}{b}}=\frac{\sqrt[3]{a}}{\sqrt[3]{b}}$dla dowolnego a, b ≠ 0

W zeszycie zapisz przykład z podręcznika str. 252, str. 253.

Oblicz wart. pierwiastka:

$\sqrt{484}$ = 2 · 11 = 22 - wart. pierwiastka

|  |  |
| --- | --- |
| 484 | 2 |
| 242 | 2 |
| 121 | 11 |
| 11 | 11 |
| 1 |  |

$\sqrt[3]{216}$ = 2 · 3 = 6 – wart. pierwiastka

|  |  |
| --- | --- |
| 216 | 2 |
| 108 | 3 |
| 36 | 2 |
| 18 | 2 |
| 9 | 3 |
| 3 | 3 |
| 1 |  |
|  |  |

Zad. 4, str. 253

$$\sqrt{16x^{2}}=\sqrt{16}⋅\sqrt{x^{2}}=4⋅x=4x$$

$\sqrt{x^{6}}$ = x3

$$\sqrt{\frac{4x^{2}}{y^{4}}}=\frac{2x}{y^{2}}$$

$$\sqrt[3]{\frac{1}{8}x^{3}}=\frac{1}{2}x$$

$$\sqrt[3]{27x^{6}y^{9}}=3x^{2}y^{3}$$

Zad. 5, str. 253

$$7\sqrt{2}⋅3\sqrt{3}=7⋅3⋅\sqrt{2⋅3}=21\sqrt{6}$$

$$\frac{3\sqrt{5}⋅\sqrt{6}}{2\sqrt{2}}=\frac{3⋅\sqrt{5⋅6}}{2\sqrt{2}}=\frac{3\sqrt{30}}{2\sqrt{2}}=\frac{3}{2}⋅\sqrt{\frac{30}{2}}=\frac{3}{2}\sqrt{15}$$

$$3\sqrt[3]{3}⋅4\sqrt[3]{7}=3⋅4\sqrt[3]{3⋅7}=12\sqrt[3]{21}$$

$$\sqrt[3]{\frac{1}{3}}⋅2\sqrt[3]{6}=2⋅\sqrt[3]{\frac{1}{3}⋅6}=2\sqrt[3]{2}$$

Zad. 7, str. 254

$$\sqrt{50}=\sqrt{2⋅50}=5\sqrt{2}$$

$$\sqrt{72}=\sqrt{2⋅36}=6\sqrt{2}$$

$$\sqrt{1800}=\sqrt{2⋅900}=30\sqrt{2}$$

$$\sqrt[3]{16}=\sqrt[3]{8⋅2}=2^{3}\sqrt{2}$$

$$\sqrt[3]{3000}=\sqrt[3]{3⋅100}=10\sqrt[3]{3}$$

Zadanie domowe 8, 9 – str. 254 podręcznik.