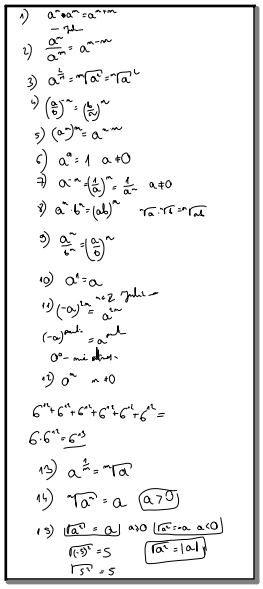
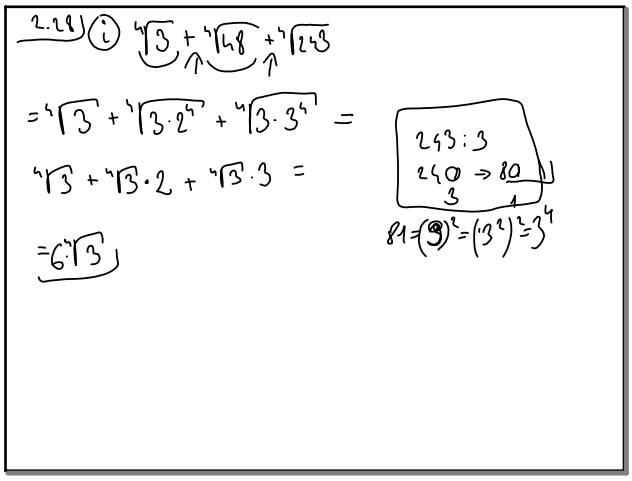
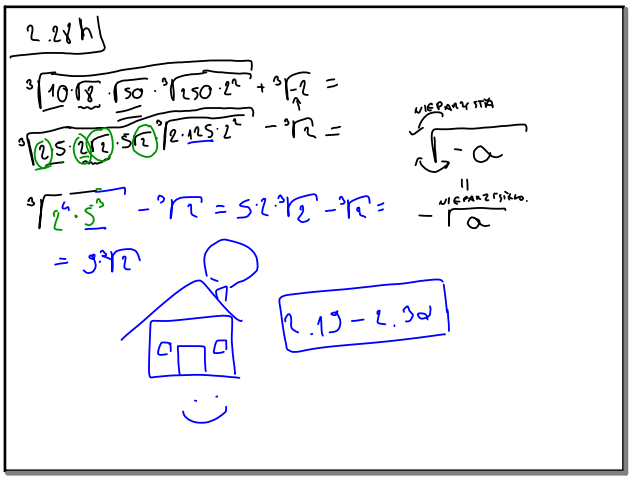

1) $a^n \cdot a^m = a^{n+m}$
2) $\frac{a^n}{a^m} = a^{n-m}$
3) $a^{\frac{1}{n}} = \sqrt[n]{a}$
4) $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$
5) $(a^n)^m = a^{n \cdot m}$
6) $a^0 = 1$ $a \neq 0$
7) $a^{-n} = \left(\frac{1}{a}\right)^n = \frac{1}{a^n}$ $a \neq 0$
8) $a^n \cdot b^n = (ab)^n$
9) $\frac{a^n}{b^n} = \left(\frac{a}{b}\right)^n$
10) $a^1 = a$
11) $(-a)^{2n} = a^{2n}$
$(-a)^{nieparz.} = a^{nieparz.}$
0^n - nie istnieje
12) 0^n $n \neq 0$
$6^{n+1} + 6^{n+1} + 6^{n+1} + 6^{n+1} + 6^{n+1} + 6^{n+1} =$
$6 \cdot 6^{n+1} = 6^{n+2}$
13) $a^{\frac{n}{m}} = \sqrt[m]{a^n}$
14) $\sqrt[n]{a^n} = a$ $(a \geq 0)$
15) $\sqrt{a^2} = a$ $a \geq 0$ $\sqrt{a^2} = -a$ $a < 0$
$\sqrt{5^2} = 5$ $\sqrt{a^2} = |a|$
$\sqrt{5^2} = 5$


2.28 i)
$\sqrt[4]{3} + \sqrt[4]{48} + \sqrt[4]{243}$
$= \sqrt[4]{3} + \sqrt[4]{3 \cdot 2^4} + \sqrt[4]{3 \cdot 3^4} =$
$\sqrt[4]{3} + \sqrt[4]{3} \cdot 2 + \sqrt[4]{3} \cdot 3 =$
$= 6 \cdot \sqrt[4]{3}$
243 : 3
240 ⇒ 80
3 1
$81 = (3^2)^2 = (3^2)^2 = 3^4$


2.28 h
$\sqrt[3]{10 \cdot \sqrt{8} \cdot \sqrt{50} \cdot \sqrt[3]{250 \cdot 2^2}} + \sqrt[3]{-2} =$
$\sqrt[3]{2 \cdot 5 \cdot 2\sqrt{2} \cdot 5\sqrt{2} \cdot \sqrt[3]{2 \cdot 125 \cdot 2^2}} - \sqrt[3]{2} =$
$\sqrt[3]{2^4 \cdot 5^3} - \sqrt[3]{2} = 5 \cdot 2 \cdot \sqrt[3]{2} - \sqrt[3]{2} =$
$= 9\sqrt[3]{2}$
WIERZCHOŁKA
$\sqrt{-a}$
=
NIEPARZYSTEGO
$-\sqrt[n]{a}$
2.19 - 2.30