8

Potenciação e Radiciação em $\mathbb{Q}$

Data e Turmas que realizaram as tarefas

Radiciação 1

Usando a fatoração descobre as raízes:

$\sqrt[2]{100} =$ $\sqrt[4]{16} =$

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

$\sqrt[3]{27} =$ $\sqrt[2]{64} =$

$\sqrt[3]{64} =$ $\sqrt[5]{32} =$

F. CORREÇÃO Radiciação 1

$\sqrt{100} = 10$ $\sqrt[4]{16} = 2$

$\sqrt[3]{8} = 2$ $\sqrt[2]{16} = 4$

$\sqrt[3]{27} = 3$ $\sqrt[5]{32} = 2$

$\sqrt[3]{64} = 4$

$\sqrt[4]{64} = 8$

$\sqrt[5]{243} =$

$\sqrt[2]{9} =$

$\sqrt[5]{3125} =$

$\sqrt[3]{1000} =$

$\sqrt[2]{196} =$

$\sqrt[4]{10000} =$

$\sqrt[2]{324} =$

$\sqrt[5]{100000} =$

$\sqrt[5]{243} = 3$

$\sqrt[2]{9} = 3$

$\sqrt[5]{3125} = 5$

$\sqrt[3]{1000} = 10$

$\sqrt[4]{10000} = 10$

$\sqrt[2]{196} = 14$

$\sqrt[2]{324} = 18$

$\sqrt[5]{100000} = 10$

$2^2 =$

$5^3 =$

$4^3 =$

$2^4 =$

$5^2 =$

$10^2 =$

$10^3 =$

$10^5 =$

$9^2 =$

$9^3 =$

$12^2 =$

$13^2 =$

F. CORREÇÃO

$2^2 = 2 \times 2 = 4$

$5^3 = 5 \times 5 \times 5 = 125$

$4^3 = 4 \times 4 \times 4 = 64$

$2^4 = 2 \times 2 \times 2 \times 2 = 16$

$5^2 = 5 \times 5 = 25$

$10^2 = 100 = 10 \times 10$

$10^3 = 10 \times 10 \times 10 = 1000$

$10^5 = 10 \times 10 \times 10 \times 10 \times 10 = 100000$

$9^2 = 9 \times 9 = 27$

$12^2 = 12 \times 12 = 144$

$13^2 = 13 \times 13 = 169$

$9^3 = 9 \times 9 \times 9 = 729$

$(-1)^3 =$

$(-1)^6 =$

$(-1)^4 =$

$(-1)^5 =$

$(-2)^2 =$

$(-3)^3 =$

$(-3)^2 =$

$\left(+\frac{1}{2}\right)^2 =$

$\left(\frac{3}{5}\right)^3 =$

$\left(-\frac{2}{3}\right)^2 =$

$\left(-\frac{1}{4}\right)^3 =$

$\left(-\frac{1}{5}\right)^2 =$

$(-1)^3 = (-1)\times(-1)\times(-1) = -1$

$(-1)^6 = (-1)\times(-1)\times(-1)\times(-1)\times(-1)\times(-1) = +1$

$(-1)^4 = (-1)\times(-1)\times(-1)\times(-1) = +1$

$(-1)^5 = (-1)\times(-1)\times(-1)\times(-1)\times(-1) = -1$

$(-2)^2 = (-2)\times(-2) = +4$

$(-3)^3 = (-3)\times(-3)\times(-3) = -27$

$(-3)^2 = (-3)\times(-3) = +9$

$\left(\frac{1}{2}\right)^2 = \frac{1}{2}\times\frac{1}{2} = \frac{1}{4}$

$\left(\frac{3}{5}\right)^3 = \frac{3}{5}\times\frac{3}{5}\times\frac{3}{5} = \frac{27}{125}$

$\left(-\frac{2}{3}\right)^2 = \left(-\frac{2}{3}\right)\times\left(-\frac{2}{3}\right) = \frac{4}{9}$

$\left(-\frac{1}{4}\right)^3 = \left(-\frac{1}{4}\right)\times\left(-\frac{1}{4}\right)\times\left(-\frac{1}{4}\right) = -\frac{1}{64}$

$\left(-\frac{1}{5}\right)^2 = \left(-\frac{1}{5}\right)\times\left(-\frac{1}{5}\right) = \frac{1}{25}$

Potenciação 2

$(-1)^{124} =$

$(-1)^{25} =$

$(+5)^{0} =$

$(-243)^{0} =$

$(0,5)^{2} =$

$(-1,2)^{3} =$

$(2,5)^{2} =$

$(-1,3)^{2} =$

$\left(-\frac{1}{9}\right)^{2} =$

$\left(-\frac{2}{7}\right)^{2} =$

$\left(-\frac{7}{3}\right)^{2} =$

F. CORREÇÃO

Potenciação 2

$(-1)^{124} = 1$

$(-1)^{25} = -1$

$(+5)^{0} = 1$

$(-243)^{0} = 1$

$(0,5)^{2} = 0,25$

$(-1,2)^{3} = -1,728$

$(2,5)^{2} = 6,25$

$(-1,3)^{2} = 1,69$

$\left(-\frac{1}{9}\right)^{2} = \frac{1}{81}$

$\left(-\frac{2}{7}\right)^{2} = \frac{4}{49}$

$\left(-\frac{7}{3}\right)^{2} = \frac{49}{9}$

$\left(-\frac{1}{10}\right)^3 =$

$\left(\frac{1}{10}\right)^4 =$

$\left(-\frac{1}{8}\right)^2 =$

$\left(\frac{1}{15}\right)^0 =$

$\left(-\frac{4}{92}\right)^0 =$

$(-253)^1 =$

$(438)^1 =$

$(-95)^2 =$

$(+11)^2 =$

$(-17)^2 =$

$\left(-\frac{1}{10}\right)^3 = -\frac{1}{1000}$

$\left(\frac{1}{10}\right)^4 = \frac{1}{10000}$

$\left(-\frac{1}{8}\right)^2 = \frac{1}{64}$

$\left(\frac{1}{15}\right)^0 = 1$

$\left(-\frac{4}{92}\right)^0 = 1$

$(-253)^1 = -253$

$(438)^1 = 438$

$(-95)^2 = 9025$

$(+11)^2 = 121$

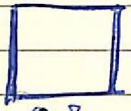
$(-17)^2 = 289$

Potenciação 3

1) Dá o quadrado de 1,4

2) Dá o cubo de 0,3

3) Qual o quadrado que tem 0,8 de lado? (Quanto vale?)



$(0,8)^2 =$

4) Qual o volume de um cubo de 1,2, de lado?

F. CORREÇÃO Potenciação 3

1) $(1,4)^2 = 1,96$

2) $(0,3)^3 = 0,027$

3) Vale $(0,8)^2 = 0,64$

4) Volume do cubo = $(1,2)^3 = 1,728$

5) Inventa problemas semelhantes