

RADICALS 1

1. Join the radical with its correspondent expression:

$\sqrt{3^5}$	$16^{5/6}$
$\sqrt[4]{5}$	$x^{7/3}$
$\sqrt[6]{16^5}$	$16^{6/5}$
$\sqrt[5]{16^6}$	$3^{5/2}$
$\sqrt[3]{4}$	$200^{1/2021}$
$\sqrt[2021]{200}$	$5^{1/4}$
$\sqrt[7]{x^3}$	$x^{3/7}$
$\sqrt[3]{x^7}$	$4^{1/3}$

2. Write the radical form of the next expressions:

$4^{2/7}$	$\sqrt{\quad}$
$3^{1/3}$	$\sqrt{\quad}$
$5^{2/4}$	$\sqrt{\quad}$
$8^{1/2}$	$\sqrt{\quad}$
$z^{6/5}$	$\sqrt{\quad}$
$t^{3/4}$	$\sqrt{\quad}$
$10^{4/3}$	$\sqrt{\quad}$
$25^{2/8}$	$\sqrt{\quad}$

3. Using the properties of exponentiation, calculate the value of the following mathematical operations, leave it blank if we cannot do any operation:

$$\sqrt{3^5} + \sqrt{3}$$

$$\sqrt{\quad}$$

$$\sqrt[4]{5} + \sqrt[4]{5}$$

$$\sqrt{\quad}$$

$$\sqrt[4]{2} \cdot \sqrt[4]{5}$$

$$\sqrt{\quad}$$

$$\sqrt[5]{2} \cdot \sqrt[4]{2}$$

$$\sqrt{\quad}$$

$$\sqrt[3]{4} \cdot \sqrt[4]{2}$$

$$\sqrt{\quad}$$

$$\sqrt[3]{4} : \sqrt[4]{4}$$

$$\sqrt{\quad}$$

$$\sqrt[3]{4^5} : \sqrt[3]{4}$$

$$\sqrt{\quad}$$

$$\sqrt[3]{x^7} : \sqrt[3]{x}$$

$$\sqrt{\quad}$$

4. Simplify the radicals if possible

$$\sqrt{12}$$

$$\sqrt{\quad}$$

$$\sqrt[4]{480}$$

$$\sqrt{\quad}$$

$$\sqrt[3]{80}$$

$$\sqrt{\quad}$$

$$\sqrt[5]{64}$$

$$\sqrt{\quad}$$

$$\sqrt[3]{425}$$

$$\sqrt{\quad}$$

$$\sqrt[3]{40}$$

$$\sqrt{\quad}$$

$$\sqrt[7]{25}$$

$$\sqrt{\quad}$$

$$\sqrt[3]{x^{16}}$$

$$\sqrt{\quad}$$

5. Calculate if possible

$$\sqrt{12} + 2\sqrt{3}$$

$$\sqrt{\quad}$$

$$\sqrt[4]{480} - \sqrt[4]{60}$$

$$\sqrt{\quad}$$

$$4\sqrt[3]{80} + 5\sqrt[3]{10}$$

$$\sqrt{\quad}$$

$$\sqrt[5]{64} - 5\sqrt[3]{2}$$

$$\sqrt{\quad}$$