Worksheet #3



SQUARES & CUBES

Learning goal: Students will simplify expressions involving squares, square roots, cubes, and cube roots using step-by-step calculations.

Instructions: Solve and state if it's a perfect square or not.

$$\sqrt[3]{\left(\sqrt{1600+}6^2+3^3
ight)}.$$

$$\sqrt{1600} = 40$$

$$6^2 = 36$$

$$3^3 = 27$$

$$40 + 36 + 27 = 103$$

$$=\sqrt[3]{103}$$

$$\sqrt[3]{\left(\sqrt{10000+}5^4+3^3
ight)}.$$

TM

$$\sqrt{\left(\sqrt{2500} + 4^4 + 2^5
ight)}.$$

$$\sqrt{\left(\sqrt{12100}+3^5+2^4
ight)}.$$

BELIEVE YOURSELF

$$\sqrt[3]{\left(\sqrt{3600}+7^2+4^3
ight)}.$$

$$\sqrt[3]{\left(\sqrt{16900+}4^5+3^2
ight)}.$$

Worksheet #3(Answers)



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Instructions: Solve and state if it's a perfect square or not.

$$egin{aligned} \sqrt[3]{\left(\sqrt{1600+}6^2+3^3
ight)}.\ \sqrt{1600}&=40\ 6^2&=36\ 3^3&=27\ 40+36+27&=103\ =\sqrt[3]{103} \end{aligned}$$

$$egin{array}{lll} 5^2 = 36 \ 3^3 = 27 \ 40 + 36 + 27 = 103 \ = \sqrt[3]{103} \end{array} \hspace{0.5cm} egin{array}{lll} 5^4 = 625 \ 3^2 = 27 \ 100 + 625 + 27 = 752 \ = \sqrt[3]{752} \end{array} \end{array} \ egin{array}{lll} \sqrt{\left(\sqrt{12100} + 3^5 + 2^4
ight)}. \ \sqrt{12100} = 100 \end{array} \end{array}$$

$$egin{aligned} \sqrt{(\sqrt{2500}+4^{\circ}+2^{\circ})}. \ \sqrt{2500} &= 50 \ 4^4 &= 256 \ 2^5 &= 32 \ 50 + 256 + 32 &= 338 \end{bmatrix}$$

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$$egin{aligned} \sqrt{\left(\sqrt{12100}+3^5+2^4
ight)}.\ \sqrt{12100}&=100\ 3^5&=243\ 2^4&=16\ 110+243+16&=369\ &=\sqrt{369} \end{aligned}$$

 $\left(\sqrt{10000+}5^4+3^3
ight)$.

 $\sqrt{10000} = 100$

$$egin{align} \sqrt[3]{\left(\sqrt{3600}+7^2+4^3
ight)}.\ \sqrt{3600}&=60\ 7^2&=49\ 4^3&=64\ 60+49+64&=173\ =\sqrt[3]{173} \ \end{pmatrix}$$

$$\sqrt[3]{\left(\sqrt{16900+}4^5+3^2
ight)}. \ \sqrt{16900}=130 \ 4^3=1024 \ 3^2=9 \ 130+1024+9=1163 \ =\sqrt[3]{1163}$$