

Name: _____

Grade: _____

Score: _____

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.

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

$$\sqrt{1600} = 40$$

$$6^2 = 36$$

$$3^3 = 27$$

$$40 + 36 + 27 = 103$$

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

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

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

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

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

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

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Worksheet #3(Answers)

**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.

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

$$\sqrt{1600} = 40$$

$$6^2 = 36$$

$$3^3 = 27$$

$$40 + 36 + 27 = 103$$

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

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

$$\sqrt{10000} = 100$$

$$5^4 = 625$$

$$3^2 = 27$$

$$100 + 625 + 27 = 752$$

$$= \sqrt[3]{752}$$

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

$$\sqrt{2500} = 50$$

$$4^4 = 256$$

$$2^5 = 32$$

$$50 + 256 + 32 = 338$$

$$\sqrt{338}$$

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

$$\sqrt{12100} = 110$$

$$3^5 = 243$$

$$2^4 = 16$$

$$110 + 243 + 16 = 369$$

$$= \sqrt{369}$$

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

$$\sqrt{3600} = 60$$

$$7^2 = 49$$

$$4^3 = 64$$

$$60 + 49 + 64 = 173$$

$$= \sqrt[3]{173}$$

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

$$\sqrt{16900} = 130$$

$$4^3 = 64$$

$$3^2 = 9$$

$$130 + 64 + 9 = 203$$

$$= \sqrt[3]{203}$$