

Name: _____

Grade: _____

Score: _____

Worksheet #1

**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.

$$\sqrt[3]{\sqrt{64} + 2^3}.$$

$$\sqrt{64} = 8$$

$$2^3 = 8$$

$$8 + 8 = 16$$

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

$$\sqrt{(\sqrt{16} + 2^3)}.$$

$$\sqrt{\sqrt{(81 + 3^2)}}.$$

$$\sqrt[3]{(\sqrt{36} + 5^2)}.$$

$$\sqrt[3]{(\sqrt{25} + 4^2)}.$$

$$\sqrt{(\sqrt{49} + 3^3)}.$$

Name: _____

Grade: _____

Score: _____

Worksheet #1(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.

$$\sqrt[3]{\sqrt{64} + 2^3}.$$

$$\sqrt{64} = 8$$

$$2^3 = 8$$

$$8 + 8 = 16$$

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

$$\sqrt{(\sqrt{16} + 2^3)}.$$

$$\sqrt{16} = 4$$

$$2^3 = 8$$

$$4 + 8 = 12$$

$$= \sqrt{12}$$

$$\sqrt{\sqrt{(81 + 3^2)}}.$$

$$\sqrt{81} = 9$$

$$3^2 = 9$$

$$9 + 9 = 18$$

$$= \sqrt{18}$$

$$\sqrt[3]{(\sqrt{36} + 5^2)}.$$

$$\sqrt{36} = 6$$

$$5^2 = 25$$

$$6 + 25 = 31$$

$$= \sqrt[3]{31}$$

$$\sqrt[3]{(\sqrt{25} + 4^2)}.$$

$$\sqrt{25} = 5$$

$$4^2 = 16$$

$$5 + 16 = 21$$

$$= \sqrt[3]{21}$$

$$\sqrt{(\sqrt{49} + 3^3)}.$$

$$\sqrt{49} = 7$$

$$3^3 = 27$$

$$7 + 27 = 34$$

$$= \sqrt{34}$$