Handout 2: The Roots-Answers

Jimmy Fallon digs them.

1. Simplify
$$\sqrt[3]{64}$$
.

4

2. Simplify
$$\left(\sqrt{\frac{1}{4}}\right)\sqrt[3]{8}$$
.

1

3. Simplify
$$\sqrt{242}$$
.

 $11\sqrt{2}$

4. Simplify
$$\sqrt{1000}$$
.

 $10\sqrt{10}$

5. Simplify
$$\sqrt{12} + \sqrt{300}$$
.

 $12\sqrt{3}$

6. Simplify
$$(x^{1/3})(\sqrt{x})(x^3)$$
.

 $x^{\frac{23}{6}}$

7. Simplify
$$\frac{\sqrt[3]{x}\sqrt{81x^2}}{3x}$$
.

 $3x^{1/3}$

8. Simplify
$$\frac{\sqrt[3]{a^5}\sqrt{b}}{a}$$
.

 $a^{2/3}b^{1/2}$

9. Simplify
$$3\sqrt{9} + \sqrt{3^4}$$
.

18

10. Simplify
$$\frac{x^2x}{\sqrt[3]{x}}$$
.

 $x^{8/3}$

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