



Printable Assessments

CAMI Maths: Grade 8

Roots and surds

1. Simplify the following expression using square roots.

1.1 $\sqrt{4}$

1.2 $\sqrt{81}$

1.3 $\sqrt{121}$

1.4 $\sqrt{36} \times \sqrt{49}$

1.5 $\sqrt{20 \times 5}$

1.6 $\sqrt{173 - 29}$

1.7 $\sqrt{8 - 4}$

1.8 $\sqrt{52 - 16}$

1.9 $\sqrt{25} \div \sqrt{1}$

1.10 $\sqrt{144} - \sqrt{1}$

2. Simplify the following expression using cubes and cube roots.

2.1 $(\sqrt[3]{64})^2$

2.2 $(\sqrt{25})^3$

2.3 $3\sqrt{1}$

2.4 $\sqrt[3]{27}$

2.5 $(\sqrt[3]{32})^3$



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MEMO

1. Simplify the following expressions using square roots.

[1.8.3.1 ; 1.8.3.3]

1.1 $\sqrt{4} = 2$

1.2 $\sqrt{81} = 9$

1.3 $\sqrt{121} = 11$

1.4 $\sqrt{36} \times \sqrt{49} = 6 \times 7 = 42$

1.5 $\sqrt{20 \times 5} = \sqrt{100} = 10$

1.6 $\sqrt{173 - 29} = \sqrt{144} = 12$

1.7 $\sqrt{8 - 4} = \sqrt{4} = 2$

1.8 $\sqrt{52 - 16} = \sqrt{36} = 6$

1.9 $\sqrt{25} \div \sqrt{1} = 5 \div 1 = 5$

1.10 $\sqrt{144} - \sqrt{1} = 12 - 1 = 11$

2. Simplify the following expressions using cubes and cube roots.

2.1

[1.8.3.2]

$$(\sqrt[3]{4 \times 4 \times 4})^2 = (4)^2 = 16$$

2.2

$$(\sqrt{25})^3 = (5)^3 = 125$$

2.3

$$3\sqrt{1} = 3$$

2.4

$$\sqrt[3]{27} = \sqrt[3]{3 \times 3 \times 3} = 3$$

2.5

$$(\sqrt[3]{32})^3 = (32^{\frac{1}{3}})^3 = 32$$