

Name \_\_\_\_\_

Common Core Standard 8.EE.A.2 – Expressions and Equations

 Which of the following represents  $\sqrt{8100}$ ? Be sure to show your work.

A 90

B 900

C 9.9

D 0.9

Common Core Standard 8.EE.A.2 – Expressions and Equations

 Which of the following represents  $\sqrt[3]{512}$ ? Be sure to show your work.

A 16

B 8

C 14

D 12

Common Core Standard 8.EE.A.2 – Expressions and Equations

 Which of the following represents  $\sqrt{32}$ ? Be sure to show your work.A  $4\sqrt{2}$ B  $2\sqrt{4}$ 

C 4

D 8

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Common Core Standard 8.EE.A.2 – Expressions and Equations

 Which of the following equations is true? Be sure to explain your answer.

A  $\sqrt{2 \times 2 \times 0.5 \times 5} = 1$

B  $\sqrt{0.2 \times 0.2 \times 0.5 \times 0.5} = 1$

C  $\sqrt{0.2 \times 0.2 \times 5 \times 5} = 1$

D  $\sqrt{2 \times 2 \times 5 \times 5} = 1$

Common Core Standard 8.EE.A.2 – Expressions and Equations

 Which of the following equations is true? Be sure to explain your answer.

A  $\sqrt{5 \times 5 \times 5 \times 5 \times 7 \times 7} = 25 \times 7$

B  $\sqrt{5 \times 5 \times 3 \times 3 \times 3 \times 7 \times 7} = 25 \times 7$

C  $\sqrt{4 \times 5 \times 5 \times 4 \times 7 \times 9} = 20 \times 7$

D  $\sqrt{5 \times 5 \times 5 \times 5 \times 7 \times 9 \times 7} = 25 \times 7$

Common Core Standard 8.EE.A.2 – Expressions and Equations

 Which of the following equations is true? Be sure to explain your answer.

A  $\sqrt{16} \times \sqrt{16} = \sqrt{256}$

B  $\sqrt{100} + \sqrt{49} = \sqrt{2.56}$

C  $\sqrt{169} - \sqrt{4} = \sqrt{256}$

D  $\sqrt{1.96} \div \sqrt{16} = \sqrt{256}$

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Common Core Standard 8.EE.A.2 – Expressions and Equations

- The volume of a cube is  $1331 \text{ cm}^3$ . What is the area of each face of a cube? Be sure to show your work.

- A 110  
 B 15 224  
 C 121  
 D 113

Common Core Standard 8.EE.A.2 – Expressions and Equations

- Abbie wants to buy a new rug for her bedroom. In a department store she finds a square rug that has an area of  $36 \text{ ft}^2$ . How long is each side of the rug? How many of those rugs are needed to cover an area of 144 square foot? Be sure to show your work.

- A 8; 4  
 B 6; 4  
 C 6; 6  
 D 8; 2

Common Core Standard 8.EE.A.2 – Expressions and Equations

- The value of which expression is 4? Be sure to show your work.

- A  $\sqrt[3]{\frac{64}{0.8}} - \sqrt{\frac{144}{0.36}}$   
 B  $\sqrt[3]{\frac{0.064}{0.008}} + \sqrt{\frac{144}{36}}$   
 C  $\sqrt[3]{\frac{0.064}{0.008}} - \sqrt{\frac{144}{36}}$   
 D  $\sqrt[3]{\frac{0.64}{0.008}} + \sqrt{\frac{14.4}{36}}$

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Common Core Standard 8.EE.A.2 – Expressions and Equations

Which row arranges the values from greatest to least? Be sure to explain your answer.

A  $\sqrt{0.81}$ ,  $\sqrt[3]{8}$ ,  $\sqrt{6.25}$ ,  $\sqrt[3]{64}$

B  $\sqrt[3]{64}$ ,  $\sqrt[3]{8}$ ,  $\sqrt{6.25}$ ,  $\sqrt{0.81}$

C  $\sqrt{0.81}$ ,  $\sqrt{6.25}$ ,  $\sqrt[3]{64}$ ,  $\sqrt[3]{8}$

D  $\sqrt{6.25}$ ,  $\sqrt[3]{64}$ ,  $\sqrt{0.81}$ ,  $\sqrt[3]{8}$

Common Core Standard 8.EE.A.2 – Expressions and Equations

Find the side length of a square with an area of  $324 \text{ ft}^2$ ? Be sure to show your work.

A 17

B 9

C 18

D 19

Common Core Standard 8.EE.A.2 – Expressions and Equations

Find  $q$ , if  $q^2 = \frac{81}{169}$ . Be sure to show your work.

A  $\frac{9}{13}$

B  $\frac{8}{14}$

C  $\frac{81}{169}$

D  $\frac{11}{16}$