

Homework 9/2/15

Algebra 2

1. The expression $\sqrt{200}$ is equivalent to

1. $2\sqrt{10}$
2. $10\sqrt{2}$
3. $100\sqrt{2}$
4. $2\sqrt{100}$

2. The expression $\sqrt{500}$ is equivalent to

1. $50\sqrt{10}$
2. $5\sqrt{10}$
3. $10\sqrt{5}$
4. $10\sqrt{50}$

3. If $4\sqrt{5} = \sqrt{n}$, then the value of n is

1. 10
2. 20
3. 80
4. 100

4. Simplify: $\sqrt{50r^2s^4}$

1. $5rs^2\sqrt{2}$
2. $25rs$
3. $5\sqrt{2} + rs^2$
4. $5rs^2$

5. Simplify the radical expression: $x\sqrt{125x^5y^2z^4}$

1. $5xyz\sqrt{5xz}$
2. $5x^3yz^2\sqrt{25x}$
3. $5x^2yz^2\sqrt{5x}$
4. $5x^3yz^2\sqrt{5x}$

6. Simplify the radical expression: $\frac{1}{2}\sqrt{80xz^3}$

1. $4z\sqrt{5xz}$
2. $8z\sqrt{5xz}$
3. $2z\sqrt{5xz}$
4. $2xz^2\sqrt{5x}$

7. Simplify the radical expression: $ab\sqrt{a^2b^3c^4d^5}$

1. $a^2b^2c^2d^2$
2. $a^2b^2c^2d^2\sqrt{bd}$
3. $a^2bcd^2\sqrt{bd}$
4. $a^2b^2c^2d^2\sqrt{abcd}$

8. Simplify: $\sqrt[3]{54x^4y^5}$

1. $18xy\sqrt[3]{xy^2}$
2. $3xy\sqrt[3]{2xy^2}$
3. $27x^3y^3\sqrt[3]{2xy^2}$
4. $3x^2y^2\sqrt[3]{6y}$

9. The expression $\sqrt[3]{-16y^4z^{11}}$ is equivalent to which of the following?

1. $4y^2z^5\sqrt[3]{z}$
2. $-4yz^3\sqrt[3]{2yz^2}$
3. $-2yz^3\sqrt[3]{2yz^2}$
4. Cannot be simplified

10. The expression $\sqrt[4]{32x^7y^4z^{11}}$ is equivalent to which of the following?

1. $2xyz^2\sqrt[4]{2x^3z^3}$
2. $8xyz^2\sqrt[4]{2x^3yz^3}$
3. $2xyz^2\sqrt[4]{4x^3z^3}$
4. $4xyz^2\sqrt[4]{2x^3z^3}$

11. Which of the following expressions is equivalent to $\sqrt[4]{810}$?

1. $9\sqrt{5}$
2. $3\sqrt[4]{10}$
3. $9\sqrt[4]{10}$
4. $3\sqrt[4]{5}$

12. Which of the following expressions is equivalent to $\sqrt[5]{-64x^7y^{10}z^{13}}$?

1. $-2xy^2z^2\sqrt[5]{2x^2z^3}$
2. $-8xy^2z^2\sqrt[5]{x^2z^3}$
3. $-2xy^2z^3\sqrt[5]{4x^3y^2z}$
4. $2xy^2z^2\sqrt[5]{-4x^2z^3}$