

1. Simplify:

$$) \sqrt[4]{162x^2y^4z^6}$$

A) $\sqrt[4]{120y^3z^2}$

B) $2xz\sqrt[4]{2x^3y^2}$

C) $3y\sqrt[4]{3x^3y^2z}$

D) $3yz\sqrt[4]{2x^2z^2}$

2. Simplify:

$$\sqrt{20n^3} \cdot -3\sqrt{20n^3}$$

A) $-60n^3$

B) 20

C) 400

D) $2\sqrt{10}$

3. Simplify:

$$) \frac{3\sqrt{5}}{\sqrt{80}}$$

A) $\frac{6}{5}$

B) $\frac{3}{4}$

C) $\frac{5\sqrt{3}}{4}$

D) 2

4. Simplify:

$$) \frac{5 - \sqrt{2}}{\sqrt{3} - \sqrt{2}}$$

A) $\frac{5\sqrt{3} + \sqrt{6} - 5\sqrt{2} - 2}{23}$

B) $\frac{20\sqrt{5} + 40 + 5\sqrt{3} + 2\sqrt{15}}{5}$

C) $\frac{-2 - \sqrt{5}}{4}$

D) $5\sqrt{3} + 5\sqrt{2} - \sqrt{6} - 2$

5. Given the following problem, solve for real and extraneous answers, and categorize.

$$\sqrt{x+5} - 2 = -x - 5$$

Real X Values:

Extraneous X Values:

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6. Given the following problem, solve for real and extraneous answers, and categorize.

$$\sqrt{x-3} + 4 = 2x - 3$$

Real X Values:

Extraneous X Values:

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7. Given the following problem, solve for real and extraneous answers, and categorize.

$$-\frac{1}{2}\sqrt{x+7} + 5 = x - 6$$

Real X Values:

Extraneous X Values:

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8. Drag the radical function to the right graph.

$y = \sqrt{x + 4}$	$y = 2\sqrt[3]{x + 2} - 4$	$y = 3\sqrt{x - 2}$
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