Exponents and Radicals: Worksheet

Algebra · Worksheet for https://jugami.com/algebra/exponents-and-radicals/ · For instant feedback, try the self-guided quiz online.

Name _____ Date _____

Work each one on paper. Leave answers with positive exponents and simplified radicals, and show your work.

1. Simplify: $3x^4 \cdot 5x^2$

Answer: _____

2. Simplify: $(3x^2)^4$

Answer: _____

3. Simplify: $(30x^8)/(6x^2)$

Answer: _____

4. Simplify, with positive exponents: $x^{-8} \cdot x^{3}$

Answer: _____

5. Evaluate: $(1/3)^{-2}$

Answer: _____

6. Write in scientific notation: 0.00042

Answer: _____

7. Multiply, in scientific notation: $(5 \times 10^{6})(3 \times 10^{-2})$

Answer: _____

8. Simplify: $\sqrt{(72x^5)}$

Answer: _____

9. Simplify: $3\sqrt{8} + \sqrt{18}$

Answer: _____

10. Rationalize: $12/\sqrt{3}$

Answer: _____

11. Evaluate: $125^{2/3}$

Answer: _____

Bonus

A little extra practice with the same skills.

12. Simplify: $(x^2)^3 \cdot x$

Answer: _____

13. Evaluate: $81^{3/4}$

Answer: _____

14. Simplify: $\sqrt{98}$

Answer: _____