

5.2 Puzzle Time

Why Did The 200-Lumen Bulb Flunk Out Of School?

Write the letter of each answer in the box containing the exercise number.

Simplify the expression.

1. $(8^2)^{1/3}$
2. $5^{3/4} \cdot 5^{1/2}$
3. $\left(\frac{64}{125}\right)^{1/3}$
4. $(2^4 \cdot 6^4)^{-1/4}$
5. $(3^{2/3} \cdot 5^{1/4})^6$
6. $\frac{4}{4^{1/2}}$
7. $\sqrt[3]{27} \cdot \sqrt[3]{729}$
8. $\frac{\sqrt[4]{32}}{\sqrt[4]{256}}$
9. $\frac{\sqrt[3]{24} \cdot \sqrt[3]{12}}{\sqrt[3]{2}}$
10. $\frac{25^{1/6} \cdot 25^{1/3}}{5^{6/5}}$
11. $\frac{4}{8 - \sqrt{3}}$
12. $10\sqrt[4]{5} - 3\sqrt[4]{5}$
13. $12(4^{3/4}) + 5(4^{3/4})$
14. $\sqrt[5]{3^5}$
15. $(3^{2/5})^{1/2}$
16. $-3(2^{1/5}) - 2(2^{1/5})$

Answers

E. $5^{5/4}$	W. $\frac{4}{5}$
H. 4	A. $\frac{1}{12}$
N. 2	S. $81 \cdot 5^{3/2}$
H. $3^{1/5}$	T. $\left(\frac{1}{8}\right)^{1/4}$
S. $2\sqrt[3]{18}$	O. 27
O. $\frac{1}{5^{1/5}}$	R. $7\sqrt[4]{5}$
G. 3	I. $17(4^{3/4})$
T. $-5(2^{1/5})$	B. $\frac{32 + 4\sqrt{3}}{61}$

1	2		3	4	5		6	7	8		9	10		11	12	13	14	15	16
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