

Algebra II Practice Test

Objective: 1.1a

1. Which is equivalent to $49^{\frac{3}{2}}$?
A 21
B 98
C 294
D 343
2. Which expression is another way to write $\sqrt[3]{125x^4}$?
A $5x^{\frac{3}{4}}$
B $5x^{\frac{4}{3}}$
C $25x^{\frac{3}{4}}$
D $25x^{\frac{4}{3}}$
3. If x and y are real numbers, what is the simplified radical form of $(x^2y^5)^{\frac{1}{5}}$?
A $y\sqrt[5]{x^2}$
B $y\sqrt{x^5}$
C $|y|\sqrt[5]{x^2}$
D $|y|\sqrt{x^5}$

Objective 1.1b

4. What is the simplified expression of $\sqrt{\frac{36x^8}{4x^6}}$?
A $3x$
B $9x$
C $3x^2$
D $9x^2$
5. What is the simplified form of $(2\sqrt{5}+3)(\sqrt{5}-1)$?
A $\sqrt{5}-3$
B $\sqrt{5}+7$
C $2\sqrt{5}-3$
D $2\sqrt{5}+7$