

Algebra II Practice N.RN.A.2: Radicals and Rational Exponents 2

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NAME: _____

Simplify:

1. $16^{\frac{5}{4}}$

- [A] 16 [B]
- $\frac{1}{2}$
- [C] 32 [D] 20

2. $243^{\frac{6}{5}}$

- [A] 243 [B]
- $\frac{1}{3}$
- [C]
- $\frac{1458}{5}$
- [D] 729

3. $64^{\frac{2}{3}}$

- [A]
- $\frac{1}{4}$
- [B] 16 [C] 64 [D]
- $\frac{128}{3}$

4. $32^{\frac{4}{5}}$

- [A]
- $\frac{128}{5}$
- [B] 32 [C]
- $\frac{1}{2}$
- [D] 16

5. $27^{\frac{2}{3}}$ [A] 9 [B] $\frac{1}{3}$ [C] 27 [D] 18

6. $8^{\frac{4}{3}}$

- [A]
- $\frac{32}{3}$
- [B]
- $\frac{1}{2}$
- [C] 16 [D] 8

7. $8^{\frac{2}{3}}$ [A] 4 [B] 8 [C] $\frac{16}{3}$ [D] $\frac{1}{2}$

8. $81^{\frac{3}{4}}$

- [A]
- $\frac{1}{3}$
- [B] 27 [C]
- $\frac{243}{4}$
- [D] 81

9. $27^{\frac{5}{3}}$

- [A] 243 [B]
- $\frac{1}{9}$
- [C] 45 [D] 729

10. Which has the same value as $144^{\frac{3}{2}}$?

- [A] 27.47 [B] 1728
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- [C] 2,985,984 [D] 12

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[1] C

[2] D

[3] B

[4] D

[5] A

[6] C

[7] A

[8] B

[9] A

[10] B