

EXAMPLES: $8^{2/3} = \left(8^{1/3}\right)^2 = \left(\sqrt[3]{8}\right)^2 = (2)^2 = 4$

$25^{3/2} = \left(\sqrt{25}\right)^3 = (5)^3 = 125$

Evaluate each of the following without the use of a calculator!

1. $100^{3/2} =$	2. $16^{3/4} =$	3. $1000^{2/3} =$	4. $25^{3/2} =$
5. $8^{4/3} =$	6. $64^{2/3} =$	7. $64^{3/2} =$	8. $81^{1/2} =$
9. $625^{3/4} =$	10. $49^{3/2} =$	11. $32^{3/5} =$	12. $121^{-1/2} =$

Evaluate each of the following without the use of a calculator!

1. $10^{-2} =$	2. $16^{-\frac{1}{2}} =$	3. $1000^{-\frac{2}{3}} =$	4. $5^{-2} =$
5. $125^{-\frac{2}{3}} =$	6. $\left(\frac{1}{4}\right)^{-\frac{1}{2}} =$	7. $49^{-\frac{1}{2}} =$	8. $81^{-\frac{1}{2}} =$
9. $6^{-3} =$	10. $32^{-\frac{3}{5}} =$	11. $7^{-2} =$	12. $\left(\frac{9}{16}\right)^{-\frac{1}{2}} =$

Name: _____

Date: _____

1. $x^{2/3} =$ _____	2. $(\sqrt[2]{x})^3 =$ _____	3. $(\sqrt[4]{x})^7 =$ _____
4. $(\sqrt[3]{x})^4 =$ _____	5. $x^{1/3} =$ _____	6. $100^{1/2} =$ _____
7. $y^{1/3} =$ _____	8. $(\sqrt[4]{x^3}) =$ _____	9. $x^{3/2} =$ _____
10. $49^{1/2} =$ _____	11. $x^{1/5} =$ _____	12. $(\sqrt{x^4}) =$ _____
13. $x^{1/2} =$ _____	14. $16^{1/2} =$ _____	15. $(\sqrt[5]{x^3}) =$ _____
16. $x^{5/1} =$ _____	17. $(\sqrt[15]{x})^3 =$ _____	18. $4^{3/2} =$ _____