

Algebra 2- Chapter 6
 Learning Target Quiz #4

Name Key Per

T #4: Rational Exponents

Simplify the expression without the use of a calculator. Write answers with positive exponents only. (2 pts each)

1. $4^{-\frac{3}{2}}$
 $\frac{1}{4^{3/2}}$
 $\frac{1}{(\sqrt{4})^3}$
 $\frac{1}{2^3} = \frac{1}{8}$

2. $(9^{\frac{1}{4}} \cdot 4^{\frac{1}{4}})^2$
 $9^{\frac{1}{2}} \cdot 4^{\frac{1}{2}}$
 $\sqrt{9} \cdot \sqrt{4}$
 $3 \cdot 2$
 6

3. $\left(\frac{16x^6}{25y^{10}}\right)^{\frac{1}{2}}$
 $\frac{\sqrt{16x^6}}{\sqrt{25y^{10}}}$
 $\frac{4x^3}{5y^5}$

1.	$\frac{1}{8}$
2.	6
3.	$\frac{4x^3}{5y^5}$
/6	