

Simplify each.

1. $\sqrt{98} = 7\sqrt{2}$
 $\wedge$
 $\sqrt{49 \cdot 2}$

2. $\sqrt{112}$
 $\swarrow \searrow$
 $16 \quad 7$
 $4\sqrt{7}$

3. $\sqrt{192}$
 $\wedge$
 $64 \quad 3$
 $(8\sqrt{3})$

Simplify each. Write answers without negative exponents or zero as an exponent.

4. $\frac{-5a^3b^{-2}}{c^0d^{-5}}$
 $\frac{-5a^3d^5}{1 \cdot b^2}$

5. $(3m^5n)^2(10m^{-3}n^4)$
 $(9m^{10}n^2)(10m^{-3}n^4)$
 $(90m^7n^6)$

6. $\frac{12x^4y^{-2}}{3x^6y^{-5}}$
 $\frac{4y^3}{x^2}$