Practice worksheet | Exponentials and logarithms

Integer and fractional index laws

Name: _____ Date: _____

6 questions | 14 marks

1. Evaluate 2^{-3}. [2 marks]

2. Evaluate $32^{\frac{2}{5}}$. [2 marks]

3. Evaluate $16^{-\frac{3}{4}}$. [2 marks]

4. Simplify $\frac{a^4a^3}{a^2}$ for $a \neq 0$. [2 marks]

5. Simplify $(16x^4)^{\frac{3}{4}}$ for $x > 0$. [3 marks]

6. Check the claim $(9+16)^{\frac{1}{2}} = 9^{\frac{1}{2}} + 16^{\frac{1}{2}}$ and explain the error. [3 marks]