

Assessment : Exponent Laws

name: _____

date: _____

Outcome: Powers					
35%	Level 1 (55%)	Level 2 (65%)	Level 3 (75%)	Level 4 (90%)	Level 4+ (100%)
Student has not yet demonstrated understanding of the standard.	Student is demonstrating an emerging understanding of the standard.	Student's demonstration of understanding is approaching the standard.	Student's demonstration of understanding is reaching the standard.	Student's demonstration of understanding is exceeding the standard.	Student's demonstration of understanding is extending the standard.

1. Which of the following can be simplified? Explain your reasoning.
 $(a^5)(a^6)$ or $(x^5)(y^5)$

2. Simplify, leaving your answer in power form.

a) $2^{14} \times 2^8$ b) $3^{24} \div 3^8$ c) $(7a^5) \times (-4a^2)$

3. Solve for the area, A_b , of the base of a rectangular prism, if the volume, V , is $16x^4$ and the height, h , is $2x^2$. ($V = A_b h$)

4. What values of m and n make the equation true and explain how you know?

$$\frac{6y^m z^4}{3y^2 z^n} = 2y^2 z$$