

Name _____



Exponent Mistakes

Directions: Each solution has one exponent mistake. Circle the mistake, write why it is incorrect, and write the correct answer.

1. Problem: $x^4 \cdot x^3$
Student's work: $x^4 \cdot x^3 = x^{12}$

2. Problem: $\frac{m^8}{m^2}$
Student's work: $\frac{m^8}{m^2} = m^{10}$

3. Problem: $(a^3)^2$
Student's work: $(a^3)^2 = a^5$

4. Problem: $(2b)^2$
Student's work: $(2b)^2 = 2b^2$

5. Problem: $\left(\frac{y}{z}\right)^2$
Student's work: $\left(\frac{y}{z}\right)^2 = \frac{y^2}{z}$

6. Problem: $c^5 \cdot c^2$
Student's work: $c^5 \cdot c^2 = c^3$

7. Problem: $(n^4)^3$
Student's work: $(n^4)^3 = n^7$

8. Problem: $\frac{p^9}{p^4}$
Student's work: $\frac{p^9}{p^4} = p^{36}$