

Name : _____

Score : _____

Teacher : _____

Date : _____

Exponents with Multiplication and Division

Simplify. Your answer should contain only positive exponents.

1) $\frac{c^6}{c^3}$

7) $\frac{8y}{3y^2}$

2) $8c^5r^4 \cdot 6c^3r^6$

8) $\left(\frac{1}{b}\right)^5 \cdot \left(\frac{1}{b}\right)^6 \cdot \left(\frac{1}{b}\right)^2$

3) $\frac{z}{z^5}$

9) $\frac{6h^5}{7h^6}$

4) $\left(\frac{1}{r}\right)^6 \cdot \left(\frac{1}{r}\right)^5$

10) $z^6 \cdot z^3 \cdot z^5$

5) $4d^2 \cdot 7d^4c^5$

11) $4^5 \cdot 4^2$

6) $\frac{2^4}{2^2}$

12) $\frac{8y^4h^2}{9yh^3}$



Name: _____

Unit 6:

Date: _____

Bell: _____

Homework

Multiplying / Dividing

Directions: Simplify the following monomials. **SHOW ALL STEPS!**

1. $\frac{y^4}{y^2}$

2. $\frac{k^6}{k^6}$

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

4. $\frac{mn^3}{n^2}$

5. $\frac{15a^3}{3a}$

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

7. $\frac{6a^5 b^7}{-2a^3 b^7}$

8. $\frac{-20x^3 y^2}{-5x^3 y}$

9. $\frac{-16ab^4}{4b^3}$

10. $\frac{21m^8 n^5}{27m^5 n^4}$

11. $\frac{-15x^5 y^4}{45xy^3}$

12. $\frac{7p^2 q^2}{14p^2 q^2}$

13. $b^6 \cdot b^4$

14. $(x^3 y^5)(x^8 y^{10})$

15. $3a^4 \cdot 5a^3$

16. $5a(-3b)(-2a^2 b^3)$

17. $11(4cd)(-cd^5)$

18. $(-xy^3)(4x^2 y)$

19. $(-15xy^4) \cdot \left(-\frac{1}{3}xy^3\right)$

20. $(5a^2 bc^3) \cdot \left(\frac{1}{5}abc^4\right)$

21. $\frac{1}{3}(2a^3 b)(6b^3)$

22. $(7a)(3ab)$

23. $(2y^2)(4xy^3)$

24. $(6x)(6x^2 y)$

25. $(10a^3 b)(6b^4)$