

Section 1.1 – Expressions and Symbols

Problem Set 2

Simplify the following expressions.

1. $c^5 \cdot c^{12}$

2. $g^3 \cdot h \cdot h \cdot k^3$

3. $m^2 \cdot m + n \cdot n^2$

4. $\left(\frac{w^3s^7}{5s^3}\right)^2$

5. $\left((-2b^4)^2 - \frac{4b^{10}}{8b^2}\right)^6$

6. $(a^3y^2)^9$

7. $\frac{3m^4}{m^2} - \frac{3m^5}{m^3}$

8. $\left(\frac{ts^2}{s}\right)^7$

9. $\left(\frac{5x^3y}{x^2} + \frac{x^2y}{2x}\right)^3$

10. $\frac{7a^5}{14a^4}$

11. $\frac{15x^9y^4}{5x^3y} + \left(\frac{15x^{13}y^2}{3x^{10}}\right)^2$

12. $(x^8yz^4)^{10}$

13. $\frac{3m^6p^3}{p^2} + \left(\frac{n^2}{3}\right)^4 p^5$

14. $x \cdot y^3 \cdot x + x \cdot y \cdot y^2$

15. $(e^4 + (3e^2)^2)^2 + e^4$

16. $\frac{x^4y^3}{x}$