

Key

1. $x^{-11} \cdot x^{-7}$

$$\frac{1}{x^{18}}$$

2. $(7x^3y^8)^2$

$$49x^6y^{16}$$

3. $\left(\frac{6c^8}{8c^5}\right)^2$

$$\left(\frac{3c^3}{4}\right)^2$$

$$\frac{9c^6}{16}$$

4. $\left(\frac{x^5y^{11}}{xy^6}\right)^4$

$$(x^4y^5)^4$$

$$x^{16}y^{20}$$

5. $(-11ab)(-4a^8b^6)$

$$44a^9b^7$$

6. $(-4m^7n^3)^4$

$$256m^{28}n^{12}$$

7. $(2a^6b)^3(-5a^4b^8)$

$$(8a^{18}b^3)(-5a^4b^8)$$

$$-40a^{22}b^{11}$$

8. $x^3 \cdot x^{-8}$

$$\frac{1}{x^5}$$

9. $\frac{-4c^{17}d^8}{30c^9d^2}$

$$\frac{-2c^8d^6}{15}$$

10. $(5xy^4)(x^{17}y^{16})$

$$5x^{18}y^{20}$$

11. $\frac{-2r^8s^{22}}{-12r^8s^{18}}$

$$\frac{5^4}{6}$$

12. $\frac{(-8a^6b^2)(3ab^7)}{36a^4b}$

$$\frac{-24a^7b^9}{36a^4b}$$

$$\frac{-2a^3b^8}{3}$$

13. $(2x^{-3})^2$

$$4x^{-6}$$

$$\frac{4}{x^6}$$

14. $\frac{16x^{-3}}{-8x^{-10}y^6}$

$$\frac{-2x^7}{y^6}$$

15. $\frac{54x^8y^6}{(3x^4y^2)^3}$

$$\frac{54x^8y^6}{27x^{12}y^6}$$

$$\frac{2}{x^4}$$

16. $(-3x^5y^4)^3$

$$\frac{-27x^{15}y^{12}}{y}$$

17. $\frac{18x^7y}{28x^{11}y^{-4}}$

$$\frac{9y^5}{14x^4}$$

18. $\frac{24x^{-5}y^3}{14x^2y^{-2}}$

$$\frac{12y^5}{7x^7}$$

19. $\frac{(2a^3b^4)^5}{-4a^{10}b^{15}}$

$$\frac{32a^{15}b^{20}}{-4a^{10}b^{15}}$$

$$-8a^5b^5$$

20. $\frac{42x^7y^{15}}{7xy^{15}}$

$$6x^6$$

21. $(4xy^2)(2x^4y^5)^4$

$$(4xy^2)(16x^{16}y^{20})$$

$$64x^{17}y^{22}$$

22. $(5x^{-2}y^3)(6x^4y^{-7})$

$$\frac{30x^2}{y^4}$$

23. $(3x^5y^4)^2(2x^7y^9)^2$

$$(9x^{10}y^8)(4x^{14}y^{18})$$

$$36x^{24}y^{26}$$

24. $\frac{(-7a^5b^6)(-4a^4b^7)}{35a^{15}b^{12}}$

$$\frac{28a^9b^{13}}{35a^{15}b^{12}}$$

$$\frac{4b}{5a^6}$$