

Simplify the expression.

1.  $\frac{(-m)^5(-m^8)^8}{(m^9)^6}$  [A]  $-m^{15}$  [B]  $m^6$  [C]  $\frac{1}{m^{10}}$  [D]  $-m^{-10}$
2.  $\frac{(-b)^3(-b^6)^6}{(b^6)^5}$  [A]  $b^4$  [B]  $-b^{-8}$  [C]  $-b^9$  [D]  $\frac{1}{b^8}$
3.  $\frac{(-e)^3(-e^5)^4}{(e^8)^2}$  [A]  $-e^{-8}$  [B]  $e^2$  [C]  $-e^7$  [D]  $\frac{1}{e^8}$
4.  $\frac{(-j)^5(-j^4)^2}{(j^3)^8}$  [A]  $-\frac{1}{j^{11}}$  [B]  $\frac{1}{j^8}$  [C] 1 [D]  $-j^{-8}$
5.  $\frac{(-a)^5(-a^7)^4}{(a^2)^4}$  [A]  $\frac{1}{a^4}$  [B]  $-a^{-4}$  [C]  $-a^{25}$  [D]  $a^{10}$
6.  $\frac{(-c)^3(-c^2)^8}{(c^4)^7}$  [A]  $-c^{-2}$  [B]  $\frac{1}{c^2}$  [C]  $-\frac{1}{c^9}$  [D]  $c^2$
7.  $\frac{(-k)^5(-k^3)^2}{(k^7)^3}$  [A]  $\frac{1}{k^6}$  [B]  $-\frac{1}{k^{10}}$  [C] 1 [D]  $-k^{-6}$
8.  $\frac{(-h)^3(-h^9)^6}{(h^5)^9}$  [A]  $-h^{-14}$  [B]  $h^4$  [C]  $\frac{1}{h^{14}}$  [D]  $-h^{12}$
9.  $\frac{(-s)^3(-s^6)^6}{(s^9)^4}$  [A]  $-s^3$  [B]  $s^2$  [C]  $-s^{-10}$  [D]  $\frac{1}{s^{10}}$
10.  $\frac{(-p)^5(-p^3)^8}{(p^4)^9}$  [A]  $-p^{-3}$  [B]  $\frac{1}{p^3}$  [C]  $-\frac{1}{p^7}$  [D]  $p^3$
11.  $\left(\frac{-7a^4b^4c^0}{5a^2b^6c^6}\right)^{-5}$  [A]  $-\frac{5^5b^{10}c^{30}}{7^5a^{10}}$  [B]  $\frac{7^5a^{10}}{5^5b^{10}c^{30}}$  [C]  $\frac{5^5a^{10}}{7^5b^{10}c^{30}}$  [D]  $-\frac{5^5a^{10}b^{10}c^{30}}{7^5}$

Simplify the expression.

12.  $\left(\frac{-3a^5b^2c^0}{2a^3b^6c^5}\right)^{-3}$  [A]  $\frac{3^3a^6}{2^3b^{12}c^{15}}$  [B]  $\frac{2^3a^6}{3^3b^{12}c^{15}}$  [C]  $-\frac{2^3b^{12}c^{15}}{3^3a^6}$  [D]  $-\frac{2^3a^6b^{12}c^{15}}{3^3}$

13.  $\left(\frac{-2a^4b^3c^0}{7a^3b^5c^9}\right)^{-4}$  [A]  $\frac{7^4a^4}{2^4b^8c^{36}}$  [B]  $\frac{2^4a^4}{7^4b^8c^{36}}$  [C]  $\frac{7^4b^8c^{36}}{2^4a^4}$  [D]  $\frac{7^4a^4b^8c^{36}}{2^4}$

14.  $\left(\frac{-5a^5b^5c^0}{3a^2b^6c^7}\right)^{-2}$  [A]  $\frac{3^2b^2c^{14}}{5^2a^6}$  [B]  $\frac{3^2a^6b^2c^{14}}{5^2}$  [C]  $\frac{3^2a^6}{5^2b^2c^{14}}$  [D]  $\frac{5^2a^6}{3^2b^2c^{14}}$

15.  $\left(\frac{-7a^3b^4c^0}{5a^2b^5c^3}\right)^{-4}$  [A]  $\frac{7^4a^4}{5^4b^4c^{12}}$  [B]  $\frac{5^4a^4b^4c^{12}}{7^4}$  [C]  $\frac{5^4a^4}{7^4b^4c^{12}}$  [D]  $\frac{5^4b^4c^{12}}{7^4a^4}$

16.  $\left(\frac{-3a^4b^2c^0}{2a^5b^6c^4}\right)^{-2}$  [A]  $\frac{2^2b^8c^8}{3^2a^2}$  [B]  $\frac{2^2a^2b^8c^8}{3^2}$  [C]  $\frac{2^2a^2}{3^2b^8c^8}$  [D]  $\frac{3^2a^2}{2^2b^8c^8}$

17.  $\left(\frac{-2a^3b^3c^0}{7a^4b^6c^8}\right)^{-3}$  [A]  $-\frac{7^3b^9c^{24}}{2^3a^3}$  [B]  $-\frac{7^3a^3b^9c^{24}}{2^3}$  [C]  $\frac{2^3a^3}{7^3b^9c^{24}}$  [D]  $\frac{7^3a^3}{2^3b^9c^{24}}$

18.  $\left(\frac{-5a^2b^5c^0}{3a^5b^6c^6}\right)^{-5}$  [A]  $\frac{5^5a^{15}}{3^5b^5c^{30}}$  [B]  $-\frac{3^5a^{15}b^5c^{30}}{5^5}$  [C]  $-\frac{3^5b^5c^{30}}{5^5a^{15}}$  [D]  $\frac{3^5a^{15}}{5^5b^5c^{30}}$

19.  $\left(\frac{-7a^4b^3c^0}{5a^2b^4c^5}\right)^{-3}$  [A]  $\frac{5^3a^6}{7^3b^3c^{15}}$  [B]  $-\frac{5^3a^6b^3c^{15}}{7^3}$  [C]  $\frac{7^3a^6}{5^3b^3c^{15}}$  [D]  $-\frac{5^3b^3c^{15}}{7^3a^6}$

20.  $\left(\frac{-3a^3b^5c^0}{2a^5b^6c^9}\right)^{-4}$  [A]  $\frac{2^4a^8}{3^4b^4c^{36}}$  [B]  $\frac{2^4a^8b^4c^{36}}{3^4}$  [C]  $\frac{2^4b^4c^{36}}{3^4a^8}$  [D]  $\frac{3^4a^8}{2^4b^4c^{36}}$

21.  $3x^3(4x^5)$

22.  $2x^2(3x^3)$

Simplify the expression.

23.  $5x^7(5x^2)$

24.  $4x^4(2x^4)$

25.  $3x^6(6x^5)$

26.  $2x^5(3x^3)$

27.  $4x^3(2x^2)$

28.  $5x^2(6x^4)$

29.  $3x^7(4x^5)$

30.  $2x^4(5x^3)$

31.  $\frac{(x^2y^{18})(x^2y)}{(x^4y^4)^4}$

32.  $\frac{(xy^{11})(x^5y)}{(x^5y^3)^3}$

33.  $\frac{(x^3y^{10})(xy)}{(x^3y)^5}$

Simplify the expression.

$$34. \frac{(x^5 y^{12})(x^4 y)}{(x^{11} y^5)^2}$$

$$35. \frac{(x^4 y^9)(x^3 y)}{(x^6 y^2)^4}$$

$$36. \frac{(x^3 y^{11})(x^5 y)}{(x^4 y^3)^3}$$

$$37. \frac{(x^5 y^{13})(xy)}{(x^4 y^2)^5}$$

$$38. \frac{(x^2 y^6)(x^3 y)}{(x^6 y)^2}$$

$$39. \frac{(xy^{28})(x^4 y)}{(x^4 y^5)^5}$$

$$40. \frac{(x^4 y^{10})(x^2 y)}{(x^4 y^4)^2}$$