

1. Evaluate each expression for $A = -8$ $B = 4$ $C = 6$

Give fractional answers in reduced form (NO DECIMALS)

a) $B^{-2} \cdot C^3$

b) $2A^2B$

c) $\frac{81B^2C^{-3}}{A^0}$

Simplify each. Make sure answers don't have any exponents that are either negative or zero. Give fractional answers in reduced form (NO DECIMALS)

2. $5A^{-3}$

3. $-7k^6m^4km^{-2}$

4. $(10A^6)^2$

5. $(8.75d^3)^1$

6. $E^4 \cdot F^{-3} \cdot G^{-8} \cdot E^{-4} \cdot G^5 \cdot F^9$

7. $\frac{-2}{w^{-7}}$

8. $(2a^4b^{-5})^3$

9. $(5B^{-7}C^4)^0$

10. $(M^{-2}K^4R)^{-4}$

11. $\left(\frac{-9R^5}{c^{-7}}\right)^{-1}$

12. $\left(\frac{m^4}{4h^3}\right)^2$

13. $(5H^3K^{-9})^2(2H^5K^3)^4$

14. $\frac{8^{-2}e^{-8}g^5h^0}{w^7x^{-1}}$

15. $\left(\frac{5N^6Q^{-4}}{w^7}\right)^{-2}$

16. $(15r^8w^7j^{12})^0(5r^{-3}w^4r^{-2}w)^2$

17. $\frac{4c^{12}d^5}{10c^3d^{15}}$

18. $\frac{24m^{-8}n^6}{18m^{-10}n^{-4}}$

19. $\left(\frac{2x^6y^{-2}}{6x^2}\right)^3$

20. $\left(\frac{a^3b^4}{3a^7b^{-2}}\right)^{-2}$

21. Write each in scientific notation.

a) 45,6000

b) 0.000000002178

22. Write each in standard notation.

a) 8.617×10^{-5}

b) 5.337×10^5

23. Find the value of each. Give your answer in both scientific notation and standard notation.

a) $(2.75 \times 10^{-11})(3.2 \times 10^3)$

b) $\frac{8.4 \times 10^{11}}{2.4 \times 10^5}$

1. a) $\frac{27}{2}$ b) 512 c) 6

2. $\frac{5}{A^3}$

3. $-7k^7m^2$

4. $100A^{12}$

5. $8.75d^3$

6. $\frac{F^6}{G^3}$

7. $-2w^7$

8. $\frac{8a^{12}}{b^{15}}$

9. 1

10. $\frac{M^8}{K^{16}R^4}$

11. $\frac{1}{-9c^7R^5}$

12. $\frac{m^8}{16h^6}$

13. $\frac{400H^{26}}{K^6}$

14. $\frac{g^5x}{64e^8w^7}$

15. $\frac{Q^8w^{14}}{25N^{12}}$

16. $\frac{25w^{10}}{r^{10}}$

17. $\frac{2c^9}{5a^{10}}$

18. $\frac{4m^2n^{10}}{3}$

19. $\frac{x^{12}}{27y^6}$

20. $\frac{9a^8}{b^{12}}$

21. a) 4.56×10^5

b) 2.178×10^{-9}

22.a) 0.00008617

b) 533,700

23. a) $8.8 \times 10^{-8} = 0.000000088$

b) $3.5 \times 10^6 = 3,500,000$