

Scientific notation

Write the number in scientific notation.

1. 8,000 = 8×10^3

2. 0.0037 = 3.7×10^{-3}

3. 6,600 = 6.6×10^3

4. 0.00045 = 4.5×10^{-4}

5. 0.00024 = 2.4×10^{-4}

6. 0.0009 = 9×10^{-4}

7. 65,000 = 6.5×10^4

8. 0.08 = 8×10^{-2}

9. 0.04 = 4×10^{-2}

10. 0.0013 = 1.3×10^{-3}

11. 230,000 = 2.3×10^5

12. 260,000 = 2.6×10^5

Standard form

Write the number in standard form.

1. $7.5 \times 10^{-2} =$ **0.075**

2. $9.6 \times 10^{-3} =$ **0.0096**

3. $7.4 \times 10^4 =$ **74,000**

4. $1 \times 10^{-2} =$ **0.01**

5. $6.4 \times 10^5 =$ **640,000**

6. $9.7 \times 10^{-3} =$ **0.0097**

7. $9 \times 10^{-4} =$ **0.0009**

8. $6.1 \times 10^3 =$ **6,100**

9. $1 \times 10^5 =$ **100,000**

10. $6.1 \times 10^5 =$ **610,000**

11. $1.2 \times 10^{-4} =$ **0.00012**

12. $8.1 \times 10^{-2} =$ **0.081**

Multiply

Multiply. Write the product in scientific notation.

1. $(5 \times 10^4) \times (8 \times 10^1) = \underline{4 \times 10^6}$

2. $(2 \times 10^4) \times (8 \times 10^{-2}) = \underline{1.6 \times 10^3}$

3. $(7 \times 10^4) \times (5 \times 10^2) = \underline{3.5 \times 10^7}$

4. $(9 \times 10^2) \times (7 \times 10^1) = \underline{6.3 \times 10^4}$

5. $(5 \times 10^4) \times (4 \times 10^{-2}) = \underline{2 \times 10^3}$

6. $(3 \times 10^{-4}) \times (6 \times 10^{-3}) = \underline{1.8 \times 10^{-6}}$

7. $(3 \times 10^3) \times (2 \times 10^{-4}) = \underline{6 \times 10^{-1}}$

8. $(7 \times 10^3) \times (9 \times 10^{-3}) = \underline{6.3 \times 10^1}$

9. $(2 \times 10^2) \times (6 \times 10^1) = \underline{1.2 \times 10^4}$

10. $(6 \times 10^2) \times (5 \times 10^{-4}) = \underline{3 \times 10^{-1}}$

11. $(5 \times 10^2) \times (2 \times 10^{-2}) = \underline{1 \times 10^1}$

12. $(2 \times 10^3) \times (4 \times 10^4) = \underline{8 \times 10^7}$

Divide

Divide. Write the quotient in scientific notation.

1. $(8 \times 10^4) \div (5 \times 10^3) = \underline{1.6 \times 10^1}$

2. $(5 \times 10^2) \div (2 \times 10^1) = \underline{2.5 \times 10^1}$

3. $(2 \times 10^3) \div (5 \times 10^{-2}) = \underline{4 \times 10^4}$

4. $(2 \times 10^{-1}) \div (8 \times 10^1) = \underline{2.5 \times 10^{-3}}$

5. $(3 \times 10^2) \div (5 \times 10^{-1}) = \underline{6 \times 10^2}$

6. $(9 \times 10^1) \div (2 \times 10^2) = \underline{4.5 \times 10^{-1}}$

7. $(6 \times 10^{-2}) \div (2 \times 10^{-1}) = \underline{3 \times 10^{-1}}$

8. $(3 \times 10^{-3}) \div (2 \times 10^{-2}) = \underline{1.5 \times 10^{-1}}$

9. $(4 \times 10^4) \div (4 \times 10^{-1}) = \underline{1 \times 10^5}$

10. $(7 \times 10^1) \div (7 \times 10^{-3}) = \underline{1 \times 10^4}$

11. $(6 \times 10^3) \div (5 \times 10^{-2}) = \underline{1.2 \times 10^5}$

12. $(2 \times 10^{-1}) \div (5 \times 10^2) = \underline{4 \times 10^{-4}}$