Section 4.7 Focus Exercises

1. Rewrite each expression as a product of a whole number and a power of 10. Use exponents to represent the power of 10.

a) 500,000,000,000 b) 4,000,000 c) 900

d) 0.03 e) 0.0002 f) 0.000007

2. Rewrite each number into proper scientific notation.

a) 330,000 = b) 78,000 = c) 5,090,000 =

d) 130 = e) 0.28 = f) 0.042 =

g) 0.00913 = h) 0.0000708 = i) 0.0000002914 =

3. Expand each number to its natural form.

a) 5.6×10^{2} = b) 2.9×10^{9} = c) 7.3×10^{5} =

g) 2.3×10^{-2} = h) 4.01×10^{-4} = i) 1.89×10^{-1} =

4. Adjust each so that the coefficient is in proper form.

a) 85×10^{6} = b) 90.3×10^{3} = c) 768×10^{4} =

d) 71.6×10^{-7} = e) 0.602×10^{-5} = f) 349×10^{-4} =

5. Perform the indicated operation. Write the answer in proper scientific notation.

a) $(1.1 \times 10^{6}) \cdot (3.7 \times 10^{4})$

b) $\dfrac{3.6 \times 10^{7}}{2.4 \times 10^{2}}$

c) $(8.1 \times 10^{7}) \cdot (3.0 \times 10^{-3})$

d) $\dfrac{7.2 \times 10^{4}}{4.5 \times 10^{9}}$

e) $(6.4 \times 10^{-1}) \cdot (5.5 \times 10^{-4})$

f) $\dfrac{1.1 \times 10^{-4}}{8.8 \times 10^{-6}}$