

# LESSON PRACTICE

# 3A

Change to scientific notation.

1. 85,000,000      2. .341

3. .00038      4. 9,700,000,000

Multiply using scientific notation.

5.  $.000073 \times .0054 =$

6.  $(58,000,000)(650) =$

7.  $(.098)(.006) =$

8.  $1,800,000,000 \times 2,400,000$

Divide using scientific notation.

9.  $27,000 \div .009 =$

10.  $.0021 \div 340,000 =$

11.  $\frac{.00042}{.00006} =$

12.  $\frac{6,800,000,000}{430,000} =$

Simplify, and combine like terms when possible. Write all the variables on one line.

13.  $\frac{2X^3}{X^3Y^{-2}} - \frac{8XY^3}{XY} + \frac{7X^3Y^0}{X^4Y^2} =$

14.  $\frac{AX^3}{X^{-3}} - \frac{BX^3}{B^{-1}} + \frac{ABX}{X^2B^2} =$

15.  $3AB^{-1} + \frac{13AB}{A^{-2}B^1} + \frac{3}{A^{-1}B} =$

16.  $3X^2Y^2X^{-3}Y^0 + 2XY^{-3}6XY =$

# SYSTEMATIC REVIEW

Change to scientific notation.

1. 9,400

2. .00000053

3. .012

4. 160,000

Multiply using scientific notation.

5.  $(9,400)(.012) =$

6.  $(160,000)(.00000053) =$

Divide using scientific notation.

7.  $(9,400) \div (.012) =$

8.  $(160,000) \div (.00000053) =$

Simplify and combine like terms.

9.  $\frac{25X^{-1}Y^2}{YX} - \frac{11Y^0X^0}{XXY^{-1}} - \frac{2X}{XY^{-2}}$

10.  $\frac{13X^2Y}{XY^2} - \frac{7X^2Y}{Y^{-1}X^{-1}} + \frac{5X^0Y^{-1}X}{Y^3}$

11.  $\frac{3A^2}{B} - \frac{2^2BB}{A^{-2}A} - 4A^{-2}B$

12.  $4ABA^{-1}B + 3AB^{-2}B^3 - 5B^3A^{-1}B^{-1}A$

Simplify.

13.  $\frac{6X^2 + 4X^3}{12X}$

14.  $\frac{32X^2 + 4X + 16}{8X}$

Find the common denominator and combine.

15.  $\frac{4A}{A+5} + \frac{6}{A} =$

16.  $\frac{X}{X^2Y} + \frac{2Y}{XY} =$

Simplify.

17.  $(-4^2)^{-1}$

18.  $\frac{3^3A^{-3}B^1C^{-2}}{3^{-1}C^2A^{-4}B^3}$

Distribute.

19.  $5^2A^2B^{-3}(A^{-4} + AB^2) =$

20.  $\frac{X}{Y} \left( \frac{X^3}{Y^{-1}} + \frac{Y^3X}{X^3} \right) =$