

Answers 1.3.1

1-64. See below.

- a. $y \cdot y \cdot y \cdot y \cdot y \cdot y \cdot y$
- b. $5(2m)(2m)(2m)$
- c. $(x \cdot x \cdot x)(x \cdot x \cdot x)$
- d. $4 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y$

1-65

- c. See explanation in the “Suggested Lesson Activity” for justifying work.
 - i. x^2
 - ii. x^3y
 - iii. k^6
 - iv. $2z$
- d. i. 3×10^6
- ii. 1.6×10^6 and not 16×10^5

1-66. See below.

- a. multiplied exponents instead of adding, h^7k
- b. correct
- c. correct
- d. multiplied bases, 3^7
- e. not in scientific notation, 1.8×10^1
- f. reciprocal, $\frac{1}{w^3}$
- g. squared numerator incorrectly, 1.4×10^5
- h. correct
- i. added exponents, x^8

1-68. See below.

- a. h^2
- b. x^7
- c. $9k^{10}$
- d. n^8
- e. $8y^3$
- f. $28x^3y^6$

1-69. See below.

- a. Haley is correct. You cannot add unlike terms.
- b. Haley is incorrect. The bases differ.

1-70. See below.

- a. Not in scientific notation because 62.5 should be 6.25. 6.25×10^4 .
- b. Not in scientific notation because 1000 should be and it uses a “.” instead of an “×”. 6.57×10^3 .
- c. Not in scientific notation because 0.39 should be 3.9. 3.9×10^8

1-71. See below.

- a. 12
- b. 18
- c. 21

1-72. See below.

- a. $x = -2$
- b. $x = 1\frac{1}{2}$
- c. $x = 0$
- d. no solution