IN-SECTION EXERCISES:

1. resemblance, likeness, semblance, approximation, agreement, analogy, correspondence

2a. 3
2b. 1 + 2, 3 + 0, $\frac{1}{2} + \frac{5}{2}$, etc.
2c. 4 − 1, 5 − 2, 3 − 0, etc.
2d. 6 ÷ 2, 9 ÷ 3, etc.

3a. The capital of Idaho is Boise.
3b. The capital of Idaho is Pocatello.
3c. 3 + 4 = 7
3d. 3 + 4 = 8

4a. true
4b. false
4c. true
4d. false

5. Proper nouns are capitalized (Idaho, Boise). The first letter of a sentence is capitalized; a declarative sentence ends with a period.

The solutions to 6 and 7 are combined:

6a. Carol; English noun
6b. Carol loves mathematics; English sentence; sometimes true/sometimes false
6c. The name ‘Carol’ begins with the letter ‘C’; English sentence; true
6d. 7; mathematical expression
6e. 3 + 4; ‘three plus four’; mathematical expression
6f. 7 = 3 + 4; ‘seven equals three plus four’; mathematical sentence; true
6g. 3 + 4 = 7; ‘three plus four equals seven’; mathematical sentence; true
6h. 7 = 3 + 5; ‘seven equals three plus five’; mathematical sentence; false
6i. t; ‘tee’; mathematical expression
6j. t = 2; ‘tee equals two’; mathematical sentence; sometimes true/sometimes false
6k. 0 = 2 − t; ‘zero equals two minus tee’; mathematical sentence; sometimes true/sometimes false
6l. t − 1; ‘tee minus one’; mathematical expression
6m. t − 1 = 1 − t; ‘tee minus one equals one minus tee’; mathematical sentence; sometimes true/sometimes false
6n. t + t + t; ‘tee plus tee plus tee’; mathematical expression
6o. t − 0 = t; ‘tee minus zero equals tee’; mathematical sentence; always true
6p. 0 = 1; ‘zero equals one’; mathematical sentence; false

7. (See solutions to problem 6.)

8a. 1 + 1 + 1
8b. $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}$ or $(6)(\frac{1}{2})$ or $6 \cdot \frac{1}{2}$
8c. $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$ or $(12)(\frac{1}{4})$ or $12 \cdot \frac{1}{4}$
8d. $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}$ or $(6)(\frac{1}{2})$ or $6 \cdot \frac{1}{2}$
END-OF-SECTION EXERCISES:

9. EXP
10. EXP
11. SEN, ST/SF
12. EXP
13. EXP
14. SEN, ST/SF
15. SEN, T
16. TRUE: The name ‘Julia’ begins with the letter ‘J’.
   FALSE: The name ‘Julia’ begins with the letter ‘G’.
   ST/SF: Julia has red hair.
17. TRUE: $1 + 2 = 3$   FALSE: $1 + 4 = 3$   ST/SF: $x = 3$
18. TRUE: $x = x$   FALSE: $x = x + 1$   ST/SF: $x = 1$