



Activity 12.5 OPEN SENTENCES

Pose several open sentences. Here is a sampling for operations with decimals:

$$0.5 + \square = 5 \quad 0.4 + \square = 0.6 \quad 4.5 + 5.5 = \square - 1$$

$$0.3 \times 7 = 7 \times \square \quad \square \times 4 = 4.8 \quad \square = 2.3 - 0.5 \quad 2.4 \div \square = 4.8 \div 6$$

Discuss how students solved the problems. After using open boxes, begin to mix in variables so that students can see the variable as representing a missing value:

$$3.6 - n = 3.7 - 4 \quad n + 0.5 = 0.5 + 4.8 \quad 1.5 + 2.7 = n + 2.8$$

$$6 \times n = 3 \times 8 \quad 15 \times 27 = n \times 27 + 5 \times 27 \quad 1 = 0.5 \div n$$



Teaching Tip

Notice that each open sentence is simultaneously addressing important number relationships and number sense, so they are excellent choices for warm-up problems or learning centers.

From Van de Walle et. al. (2014). *Teaching Student-Centered Mathematics Grades: Developmentally Appropriate Instruction for Grades 6 – 8 (2nd Ed.)*. Toronto: Pearson Education, Inc. (p. 230).