

## Activity 12.5 OPEN SENTENCES

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

$$0.5 + \square = 5$$
  $0.4 + \square = 0.6$   $4.5 + 5.5 = \square - 1$   $0.3 \times 7 = 7 \times \square$   $\square \times 4 = 4.8$   $\square = 2.3 - 0.5$   $2.4 \div \square = 4.8 \div 6$ 

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:

$$3.6 - n = 3.7 - 4$$
  $n + 0.5 = 0.5 + 4.8$   $1.5 + 2.7 = n + 2.8$   $6 \times n = 3 \times 8$   $15 \times 27 = n \times 27 + 5 \times 27$   $1 = 0.5 \div n$ 



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 ( $2^{nd}$  Ed.). Toronto: Pearson Education, Inc. (p. 230).