



Activity 14.14 MAKING "TO-GO" BOXES



This activity engages students in a context that involves nets. Begin by sharing the situation with the students: Joan's Dine & Dessert Shop orders to-go boxes in three sizes (dinner, pie, and cake), but the boxes are getting very expensive. Joan wants an estimate of how much cardboard is used for each size so that she can decide whether she should make her own boxes. Please share with her how much cardboard is used for these boxes (assume no overlap of cardboard—it is taped at the edges).

- Dinner box: 7 in. $\times$ 7 in. $\times$ 3 in.
- Pie box: 5 in. $\times$ 4 in. $\times$ 3 in.
- Cake box: 8 in. $\times$ 8 in. $\times$ 5 in.

Have grid and blank paper available to students for creating their net for each box. Have students compare their diagrams and surface areas. They may have picked different bases, and the illustrations may look different. This provides a great opportunity to talk about why these different nets are equivalent. For English language learners (ELLs), the word *net* may be confusing because it may connect to the Internet or to nets used for fishing or basketball. Also, getting food in a "to-go" box may not be a practice in a student's country of origin.

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. 316).