The following problem can be solved using a variety of strategies, including guess and check or writing an equation. For this activity, however, your group must solve it strictly by *working backwards*. Show clear work and - if time permits - write a few sentences explaining your steps. (The syllabus is clear that work and explanation are expected in this course and describes these criteria more fully - read it!)

Kathy went shopping in Cranberry and spent half of her money at Barnes and Noble, another $10 at Target, and then got a $15 refund from Walmart. Later that night, she was organizing her weekly finances and couldn't remember whether she'd already given herself that week's spending-money allowance because she couldn't recall just how much cash she'd started with. She counted that she currently had $31 in her wallet. How much did she actually start with?

Work together to solve this problem using a work backward diagram and then any method you prefer to address the fraction issue at the end. Label clearly and write legibly.

Kathy went shopping in Cranberry and spent <u>one third</u> of her money at Barnes and Noble, another $10 at Target, and then got a $15 refund from Walmart. Ending up with $31, how much did she start with?