

ACTIVITY IA5.7: Withdrawing Money from the Automated Teller Machine

Intended learning: To subtract decuples from a given number.

Instructional mode: Shorter, inquiry mode for whole class or small group.

- ⑥ **Materials:** ATM graphic, chart paper and pen or chalkboard and chalk, base-ten materials as needed.

Description: Introduce the context of using an ATM machine to withdraw cash from a bank account (see Figure 5.8). *Who can tell me what an Automated Teller Machine or ATM*



Figure 5.8 Automatic Teller Machine (ATM)

is? Yes, it is a machine that allows you to deposit or withdraw cash from your bank account. I went to the ATM last night to withdraw some cash. Do you know, it would only allow me to withdraw increments of £20, £50, or £100. Why do you think that was? Yes, they only stock £20, £50 and £100 notes in the machine. I thought about that. If my balance was £457 and I withdrew £20, what would my balance be? How could I figure that out? If students lack a strategy, prompt with If I were going to make 20 using these base-ten materials, how would I do that as quickly as possible? How can we use that idea to help us with this problem? Solve other problems of increasing complexity.

Responses, variations and extensions:

- This task is best introduced when students are facile at adding or subtracting ten from any number.
- For less facile students, the machine could have £10 notes and the initial balance could be less than £100.
- Some students may need base-ten materials to support their reasoning about the quantities.
- The ENL is an excellent tool for notating student thinking during whole-group discussions.
- School money or base-ten materials can be used to support students' reasoning.