POW #15 - Pre-Algebra

Anjelica's Very Odd Magic Sweater [Problem #4052]

Anjelica was wearing her new sweater when she put her hand in the pocket and found a dime. "Look, I found a dime in my pocket," she told her mom and put the dime on the table.

She put her hand in the pocket again and this time she found three dimes.

"Wow!" Anjelica thought, "I have a magic sweater!" She put her dimes together on the table and put her hand in her pocket again, and this time she found five!

Her mom said, "If you do this 10 times total, you'll have 100 dimes!" Anjelica asked, "How did you do that in your head so fast?"

Question: What's a shortcut her mother might have used?

Extra: How many dimes will Anjelica find when she puts her hand in her pocket for the *n*th time?

Submit your solution in a GoogleDoc that is in your Mathematics Folder. You must explain your solution in sentences! Use the classroom scanner to scan documents and email to yourself.