Lesson 11-6

Problem

Letisha has several coins in her purse, made up of nickels, dimes, and quarters. She has twice as many dimes as nickels and 3 fewer quarters than dimes. The total value of the coins is $3.75. How many dimes does she have? Select the most reasonable answer.

A. 6 dimes **B.** 9 dimes **C.** 12 dimes **D.** 14 dimes

Solve the Problem

C. Since there are twice as many dimes as nickels, the number of dimes must be even, so B is not a reasonable answer. If there were 6 dimes, there would be only 3 nickels, and the value of the dimes and nickels together would be $0.75, leaving $3.00 for the quarters. But it takes 12 quarters to make $3.00, and there cannot be more quarters than dimes, so A is also not reasonable. If there were 14 dimes, there would be 7 nickels, and the value of the dimes and nickels together would be $1.75, leaving $2.00 for the quarters. But it takes 8 quarters to make $2.00, and that would be 6 fewer quarters than dimes, not 6, so D is not reasonable. The only choice that remains is C.

Check your answer: If there are 12 dimes, then there are 6 nickels, and the value of the nickels and dimes together is $1.50, leaving $2.25 for the quarters. It takes 9 quarters to make $2.25, and 9 is 3 fewer than 12, so choice C checks.