UNIT 8 EXERCISES 11-15

MONEY

2004A 11. **(A)** If n is the number of coins in Paula's purse, then their total value is $20n$ cents. If she had one more quarter, she would have $n+1$ coins whose total value in cents could be expressed both as $20n + 25$ and as $21(n + 1)$. Therefore

$$20n + 25 = 21(n + 1), \quad \text{so} \quad n = 4.$$

Since Paula has four coins with a total value of 80 cents, she must have three quarters and one nickel, so the number of dimes is 0.