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### 7.1 Enrichment and Extension

## House Plans



Use the diagram above to answer the following questions. All measurements are in feet.

1. Find the length of the two-bedroom apartment in terms of $x$.
2. Find the width of the two-bedroom apartment, not including the patio, in terms of $x$.
3. Find the perimeter of the whole apartment, including the patio, in terms of $x$.
4. Find the perimeter of the living/dining area in terms of $x$.
5. Find the perimeter of the master bedroom, including the two closets, in terms of $x$.
6. The perimeter of the living/dining area is 83 feet. What is the value of $x$ ?

Be sure to include units of measure.
7. The perimeter of the master bedroom, including the two closets, is 73 feet. What is the value of $x$ ?
8. The length of the apartment is 57 feet. What is the value of $x$ ?
9. Find the area of the whole apartment, excluding the patio, in terms of $x$.
10. Find the area of the whole apartment, including the patio, in terms of $x$.
11. The area of the kitchen is $x^{2}-5 x+6$. What is the width of the kitchen?

