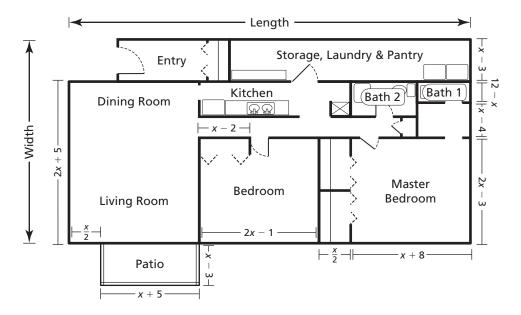
## 7.1 Enrichment and Extension

## **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  $x^2 5x + 6$ . What is the width of the kitchen?