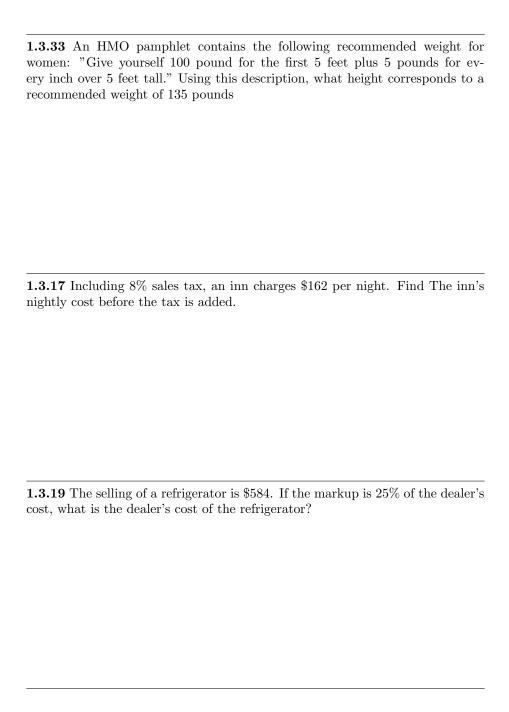
Homework Section 1.3a Models and Applications Set up an equation for each problem and solve showing all work. Be sure to check that the answer is reasonable.

 ${\bf 1.3.15}$  After a 20% reduction, you purchase a television for \$336. What was the television's price before the reductions?

1.3.27 The length of the rectangular tennis court at Wimbledon is 6 feet longer than twice the width. If the courts perimeter is 228 feet, what are the court's dimensions?

1.3.31 An automobile repair shop charged a customer \$448, listing \$63 for parts and the remainder for labor. If the cost of labor is \$35 per hour, how many hours of labor did it take to repair the car?



Solve each formula for the specified variable.

**1.3.37** A = lw for w

**1.3.43**  $E = mc^2$  for m

**1.3.45** T = D + pm for p

**1.3.49** S = P + Prt for r

 $1.3.39 \ A = \frac{1}{2}bh \ \text{for } b$ 

**1.3.41** I = Prt for P

 $1.3.41 A = \frac{1}{2}h(a+b) \text{ for } a$ 

 $1.3.51 \ B = \frac{F}{S-V} \ \text{for } S$ 

**1.3.53** IR + Ir = E for I