Each problem below is similar to the example with the same number in your textbook. After reading through the example in your textbook, or watching one of the videos of that example on MathTV, try the matched problem to check your progress in this section.

1. The length of a rectangle is 4 inches less than twice the width. The perimeter is 70 inches. Find the length and width.
2. Two complementary angles are such that one is three more than twice the other. Find the measure of the two angles.
3. The lengths of the three sides of a right triangle are three consecutive even integers. Find the lengths of the three sides.
4. In July , Ken bought a used Toyota Sienna. The total price, which includes the price of the car plus sales tax, was $\$ 19,350$. If the sales tax rate was $7.25 \%$, what was the price of the van?
5. Suppose a person invests a total of $\$ 10,000$ in two accounts. One account earns 5\% annually and other earns $3 \%$ annually. If the total interest earned from both accounts in a year is $\$ 410$, how much is invested in each account?
6. Two boats leave from an island port at the same time. One travels due north at a speed of ten miles per hour. The other travels due west at a speed of twenty-four miles per hour. How long until the distance between the two boats is 65 miles?

Each problem below is similar to the example with the same number in your textbook. After reading through the example in your textbook, or watching one of the videos of that example on MathTV, try the matched problem to check your progress in this section.

1. The length of a rectangle is 4 inches less than twice the width. The perimeter is 70 inches. Find the length and width.

The length is 22 inches and the width is 13 inches.
3. Two complementary angles are such that one is three more than twice the other. Find the measure of the two angles.

One angle is $29^{\circ}$ and the other is $61^{\circ}$.
5. The lengths of the three sides of a right triangle are three consecutive even integers. Find the lengths of the three sides.

The sides are 6,8 , and 10 .
2. In July , Ken bought a used Toyota Sienna. The total price, which includes the price of the car plus sales tax, was $\$ 19,350$. If the sales tax rate was $7.25 \%$, what was the price of the van?

The price of the van was $\$ 18,000$.
4. Suppose a person invests a total of $\$ 10,000$ in two accounts. One account earns 5\% annually and other earns $3 \%$ annually. If the total interest earned from both accounts in a year is $\$ 410$, how much is invested in each account?

There is $\$ 4,500$ invested at $3 \%$ and $\$ 5,500$ invested at 5\%.
6. Two boats leave from an island port at the same time. One travels due north at a speed of ten miles per hour. The other travels due west at a speed of twenty-four miles per hour. How long until the distance between the two boats is 65 miles?

It will take 2.5 hours.

