Here are a set of problems for my Algebra notes. These problems do not have any solutions available on this site. These are intended mostly for instructors who might want a set of problems to assign for turning in. I try to put up both practice problems (with solutions available) and these problems at the same time so that both will be available to anyone who wishes to use them.
Application of Quadratic Equations

1. The length of a rectangle is 4 feet more than the width. If the area of the rectangle is 136 ft² what are the dimensions of the rectangle?

2. The area of some rectangle is 35 in². Four times the width of this rectangle is the same as 3 inches more than twice the length. What are the dimensions of the rectangle?

3. The area of a triangle is 28 m² and the height of the triangle is 2 meters less than 5 times the base. What are the height and base of this triangle?

4. Two cars start out at the same spot. One car starts to drive north at 18 mph 5 hours before the second car starts driving to the east at 32 mph. How long after the first car starts driving does it take for the two cars to be 350 miles apart?

5. Two cars start out at the same point and at the same time one starts driving north while the other starts driving east at a speed that is 4 mph faster than the car driving north. Twelve hours after the cars start driving they are 600 miles apart. What was the speed of each car?

6. Two people can paint a house in 21 hours. Working individually one of the people can paint the house in 6 hours more than it takes the other person to paint the house. How long would it take each person working individually to paint the house?