

A new car worth \$24,000 is depreciating in value by \$3,000 per year. Write a formula that models the car's value,  $y$ , in dollars, after  $x$  years. Use the formula to determine after how many years the car's value will be \$15,000.

In 2009, there were 11,700 students at college A, with a projected enrollment increase of 1200 students per year. In the same year, there were 32,500 students at college B, with a projected enrollment decline of 400 students per year. What year will the two colleges have the same enrollment? What will that enrollment be?

A rectangular athletic field is twice as long as it is wide. If the perimeter of the athletic field is 360 yards, what are its dimensions?

Solve for each variable indicated:

Solve for s.  $N = \frac{kQ_1Q_2}{s^2}$

Solve for t.  $K = \frac{rt}{r-t}$

Solve for p.  $\frac{1}{p} + \frac{1}{q} = \frac{1}{f}$