

### Answer on Question #79841, Chemistry/General Chemistry

Mr. and Mrs. Fancyman would like to buy a vacation house on the beach. Their dream house costs \$750000. Mr. Fancyman is the CEO of a company and makes \$3750.00 every two weeks and Mrs. Fancyman is a teacher who makes \$2500.00 every four weeks. If Mr. and Mrs. Fancyman budget to save one sixteenth of their income for their dream vacation home, how many weeks will it take for them to save up 10% down?

#### Solution

Let  $x$  to be number of weeks. The sum of money that Mr. and Mrs. Fancyman should save per week is  $\frac{750000 \times 0.1}{x}$ .

The budget of family per week is  $\frac{3750}{2} + \frac{2500}{4} = 1875 + 625 = 2500$

They save  $\frac{1}{16}$  of their week budget per week:  $\frac{1}{16} \times 2500 = 156.25$

So, solve the equation:

$$\frac{750000 \times 0.1}{x} = 156.25$$

$$x = 480$$

**Answer: 480 weeks**