Mail Call
A package weighing x pounds costs f(x) dollars to mail to a given location, where
f(x) = 2.75x.

   a) Evaluate f(3)
   b) In your own words, describe what 3 and the value f(3) mean in part (a), using the terminology *independent variable* and *dependent variable.*
   c) How much would it cost to mail a 5-lb package? A 10-lb package? 12-lb? 20-lb? Interpret this question and its answers using function notation.
   d) Is there any package that would not cost anything? What would it weigh?
   e) At what weight would our package cost $100?\

For more information: E-packages and e-mail
Email users ask the same question as surprised diners:Who ordered the spam? The answer is no one, but sending back email spam only brings more. People are
fighting spam with many new tools, including filters that look for telltale signs that a messsage is spam. Spammers, however, defeat simple filters by disguising the words and intent of their messages. New, more sophisticated filters use mathematics
to fight spam by training the filters to recognize spam over time, so that your server brings you what you want.
Spammers adapt their messages to avoid many anti-spam tools, but using a mathematical
result known as Bayes' Theorem, the tools can adapt as well.As users examine email each day, they indicate which messages passing through the filter are, in fact, spam.With training, the filter learns how likely it is that certain words or characteristics are present when a message is spam. Bayes' Theorem allows the
filter to turn this information around, calculating how likely it is that the message is
spam when those words or characteristics are present. It is a powerful application
of an old and fundamental mathematical result. Using new and old mathematical tools, mathematicians continue to work on innovative techniques to combat spam.
For More Information: "Math 1, Spam 0," Dana Mackenzie, *SIAM News*, November, 2003.