Find the difference quotient and simplify.

71) $f(x) = x^2 - x + 1$ $\qquad \dfrac{f(2 + h) - f(2)}{h}$, $h \neq 0$

79) Express the area, A, of a circle as a function of its circumference, C.

79) An open box of maximum volume is to be made from a square piece of material, 24 cm on a side, by cutting equal squares from the corners and turning up the sides.

   a) Draw and label a picture to represent this scenario.

   b) Write the volume, V, as a function of the length of the side of one of the squares that is to be cut from the corners.

   c) What is the domain of this function?

   d) Find the maximum volume of the box, and the dimensions that yield the maximum volume.

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   e) What is the range of the function?