Functions

graph $f(x) = \begin{cases} x^2+2, & x \geq -1 \\ 3-x, & x < -1 \end{cases}$

Find $f(3)$
$f(-2)$
$f(1)$
$f(-5)$

graph $f(x) = [[x]] - 2$

graph $f(x) = [[\frac{1}{2}x]]$

Variations

(1) If A varies directly with B and inversely with C, and when $A = 6$, $B = 2$ and $C = 1$, Find A if $B = 3$ and $C = 2$.

(2) m varies directly with p and inversely with the square of q. $m = 10$ when $p = 2$ and $q = 1$. Find m when $p = 4$ and $q = 4$.