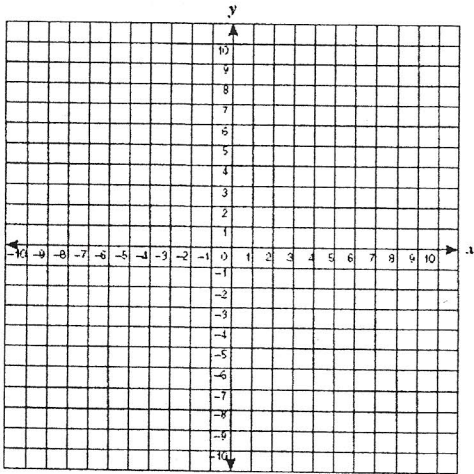


PIECE-WISE FUNCTIONS

A piece-wise function is a function that is a combination of one or more functions. The rule for a piece-wise function is different for different parts of the domain.

Graph each of the following. State the domain and range.

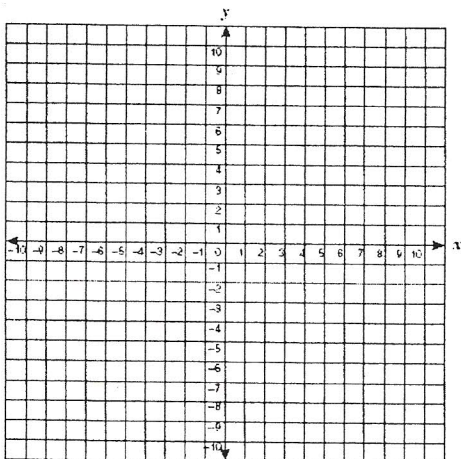
1)
$$f(x) = \begin{cases} -4 & x < 2 \\ 4 & x \geq 2 \end{cases}$$



Domain _____

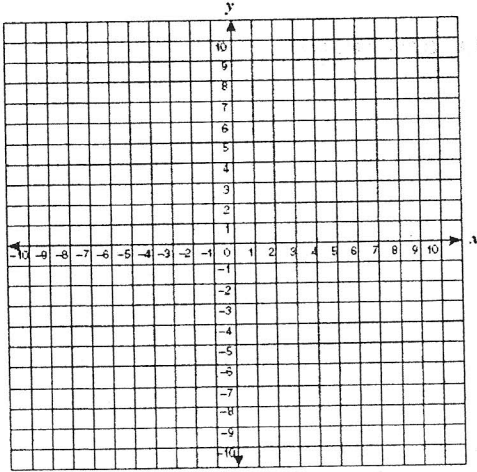
Range _____

2)
$$f(x) = \begin{cases} x + 4 & x \leq 1 \\ -2x & x > 1 \end{cases}$$



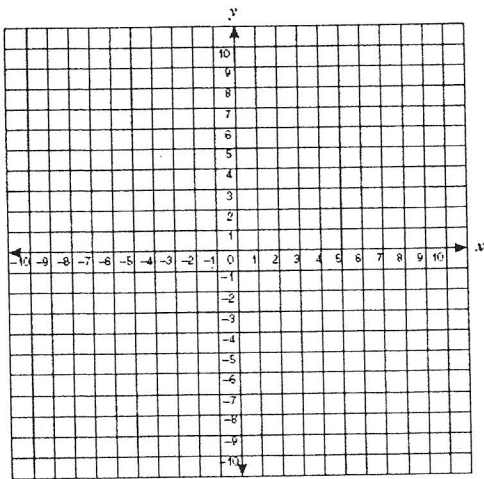
Domain _____ Range _____

$$3) \quad g(x) = \begin{cases} -2x - 5 & x < -2 \\ x^2 - 3 & -2 \leq x < 3 \end{cases}$$



Domain _____ Range _____

$$4) \quad t(x) = \begin{cases} x^2 & x \leq 0 \\ 3 & 0 < x \leq 2 \\ 2x - 2 & x > 2 \end{cases}$$



Domain _____ Range _____

