Section 2.4 - Exercises

## \# 17

a) Find the domain and range of the function.
b) Identify the intercepts on the graph.
c) Find $f(-3), f(1)$ and $f(4)$.


## \# 19

a) Find the domain and range of the function.
b) Find $f(1)$.
c) Identify the intercepts on the graph.
d) Find all $x$ such that $f(x)=1$.
e) Find all $x$ such that $f(x)>1$.

\#71
For children between ages 6 and 10, height $y$ (in inches) is frequently a linear function of age $t$ (in years). The height of a certain child is 48 inches at age 6 and 50.5 inches at age 7 .
a) Express $y$ in terms of $t$.
b) Sketch the line in part (a), and interpret the slope.
c) Predict the height of the child at age 10 .
\#72
It has been estimated that 1000 curies of a radioactive substance introduced at a point on the surface of the open sea would spread over an area of 40,000 square km in 40 days. Assuming that the area covered by the radioactive substance is a linear function of time $t$ and is always circular in shape, express the radius $r$ of the contamination as a function of $t$.

