## Precalculus 115, section 2.2 (Intro to) Graphs

notes by Tim Pilachowski
Example A: Graph the function $f(x)=x^{2}-1$ by making a table of values. Label all intercepts.
First task: What is the domain?

| $x$ | $f(x)$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |


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Last task: What is the range?
Example B: Graph the function $g(x)=\sqrt{1-x}$ by making a table of values. Label all intercepts.
First task: What is the domain?

| $x$ | $f(x)$ |
| :---: | :---: |
| -4 |  |
| -3 |  |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |


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Last task: What is the range?

Example G: Graph the function $h(x)=|1-x|$ by making a table of values. Label all intercepts.
First task: What is the domain?

| $x$ | $f(x)$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |


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Last task: What is the range?
Example H: Graph the piecewise function $m$ by making a table of values. Label all intercepts.

$$
m(x)= \begin{cases}3 & \text { if } x \leq-1 \\ x+3 & \text { if }-1<x<2 \\ 7-x & \text { if } x \geq 2\end{cases}
$$

First task: What is the domain?

| $x$ | $f(x)$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |



Last task: What is the range?

