After having read the chapter pencil in hand and done this HOMEWORK:

i. What’s the most important idea in the CHAPTER? Be brief and specific.

ii. What from this CHAPTER will you need to work on for the EXAM?
   a. 
   b. 
   c.
**Hw 2-1.** Given the plot point

![Plot Point Diagram]

of which input-output pair is it the plot point?

a. (+4, +1)  
   b. (+4, −1)  
   c. (−4, +1)  
   d. (−4, −1)  
   e. None of the preceding

**Hw 2-2.** Plot the input-output pair −2, +5

![Input-Output Pair Diagrams]

a.  
   b.  
   c.  
   d.  
   e. None of the preceding

**Hw 2-3.** Which of the following screens, if any, shows large negative outputs?

![Screen Diagrams]

M:  
N:  
P:  
Q:  

None of the preceding
a. N, Q   b. N   c. P   d. Q   e. None of the preceding

**Hw 2-4.** Which of the following screens, if any, shows inputs near $-3$?

![Screens](image)

a. M   b. N   c. P   d. Q   e. None of the preceding

**Hw 2-5.** Which screen(s), if any, show(s) the inputs that are right of $\infty$?

![Screens](image)

a. M   b. N   c. P   d. Q   e. None of the preceding

**Hw 2-6.** Which of the following specify a function?

\[
\begin{align*}
x & \xrightarrow{M} M(x) = \text{Boss of } x \\
x & \xrightarrow{S} S(x) = \text{Employee of } x \\
x & \xrightarrow{D} D(x) = \text{Cousin of } x \\
x & \xrightarrow{F} F(x) = \text{Spouse of } x
\end{align*}
\]

a. All   b. None   c. M   d. F   e. None of the preceding
Hw 2-7. Which of the following tabular relations, if any, IS/ARE function(s)?

<table>
<thead>
<tr>
<th></th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>-203</td>
<td>-45</td>
</tr>
<tr>
<td></td>
<td>+22</td>
<td>-351</td>
</tr>
<tr>
<td></td>
<td>-123</td>
<td>+753</td>
</tr>
<tr>
<td></td>
<td>-57</td>
<td>-36</td>
</tr>
<tr>
<td></td>
<td>+25</td>
<td>-675</td>
</tr>
<tr>
<td></td>
<td>-123</td>
<td>+43</td>
</tr>
<tr>
<td>N</td>
<td>-72</td>
<td>+32</td>
</tr>
<tr>
<td></td>
<td>-46</td>
<td>+32</td>
</tr>
<tr>
<td></td>
<td>+391</td>
<td>+32</td>
</tr>
<tr>
<td></td>
<td>+18</td>
<td>+32</td>
</tr>
<tr>
<td></td>
<td>+100</td>
<td>+32</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>+32</td>
</tr>
<tr>
<td>P</td>
<td>-43</td>
<td>+17</td>
</tr>
<tr>
<td></td>
<td>+17</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>-52</td>
<td>-13</td>
</tr>
<tr>
<td></td>
<td>+43</td>
<td>-17</td>
</tr>
<tr>
<td></td>
<td>-356</td>
<td>+17</td>
</tr>
<tr>
<td>Q</td>
<td>-22</td>
<td>+22</td>
</tr>
<tr>
<td></td>
<td>+52</td>
<td>-52</td>
</tr>
<tr>
<td></td>
<td>-456</td>
<td>+456</td>
</tr>
<tr>
<td></td>
<td>+98</td>
<td>-98</td>
</tr>
<tr>
<td></td>
<td>-55</td>
<td>+55</td>
</tr>
<tr>
<td></td>
<td>+209</td>
<td>-209</td>
</tr>
</tbody>
</table>


e. None of the preceding

Hw 2-8. Given the function \( TAB \) specified by the input-output table:

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>-203</td>
<td>-36</td>
</tr>
<tr>
<td>+22</td>
<td>-351</td>
</tr>
<tr>
<td>-123</td>
<td>+753</td>
</tr>
<tr>
<td>-57</td>
<td>-36</td>
</tr>
<tr>
<td>+25</td>
<td>-675</td>
</tr>
<tr>
<td>-36</td>
<td>+43</td>
</tr>
</tbody>
</table>

For which input(s) if any, does \( TAB \) return the output -36?

a. +43  b. -203  c. -57  d. -57, -203  

e. None of the preceding

Hw 2-9. Which of the following input-output rules

- \( x \xrightarrow{MILL} MILL(x) = -13 \)
- \( x \xrightarrow{NILL} NILL(x) = \text{Number at a distance } x \text{ from } 13 \)
- \( x \xrightarrow{PILL} PILL(x) = \pm 13 \)
- \( x \xrightarrow{QILL} QILL(x) = \text{Number at a distance } 13 \text{ from } x \)

is the input-output rule of a function?

a. MILL  b. NILL  c. PILL  d. QILL  

e. None of the preceding

Hw 2-10. Which of the following is/are NOT the graph of a function?
Hw 2-11. Given the function MILT whose quantitative bounded graph is
and given the input $-4$, what is the output, if any?

a. $-3$  

b. $+2$  

c. $+3$  

d. No such output  

e. None of the preceding

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**Hw 2-12.** Given the function *TILL* whose *quantitative bounded graph* is

![Quantitative Bounded Graph](image)

which input(s), if any, will give the output $+2$?

a. $-6$  

b. $+4$  

c. $-6, -1, +3, +6$  

d. No such input  

e. None of the preceding

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**Hw 2-13.** Given the function *NEAL* specified by the global input-output rule

$$x \xrightarrow{JILL} JILL(x) = -3x - 1$$

and given the input $-2$, plot the input-output pair
e. None of the preceding