By Rasa Raziulytė

$gp 1000 8000$_{16}$

| **Executable File Header** | | | |
|---|---|---|---|
| | Text Size | 400 | # total combined text size |
| | Data Size | 80 | # total combined data size |
| | Address | | |
| Text Segment | 0040 0000$_{16}$<br>(the memory address for Procedure A's lw instruction) | lw $a0, **X**($gp)<br>X = 8000$_{16}$ | # where X is the offset relative to the global pointer register to get to X in the data segment |
| | 0040 0004$_{16}$<br>(the memory address for Procedure A's jal instruction) | jal **B**<br>0040 0300$_{16}$ | # where B is the (pseudo-direct) address of Procedure A in the text segment |
| | ... | | |
| | 0040 0300$_{16}$<br>(the memory address for Procedure B's lw instruction) | lw $a1, **Y**($gp)<br>Y = 8060$_{16}$ | # where Y is the offset relative to the global pointer register to get to Y in the data segment |
| | 0040 0304$_{16}$<br>(the memory address for Procedure A's jal instruction) | jal **A**<br>0040 0000$_{16}$ | # where A is the (pseudo-direct) address of Procedure B in the text segment |
| | ... | | |
| Data Segment | Address | | |
| | 1000 0000$_{16}$ | X | # the location of X in the data section |
| | 1000 0060$_{16}$ | Y | # the location of Y in the data section |

A

B