

3. Design a comparator that can compare two 7-bit signed magnitude numbers. Use the following header:

```
module signed_mag_compare(a, b, aLTb, aGTb, aEQb);  
  
    input [6:0] a, b;  
    output aLTb, aGTb, aEQb;  
  
    // Add code here  
  
endmodule
```