

ACTIVITY 8

STATUS FLAGS & ADDITION/SUBTRACTION

Note: The `mov` instruction does not change any flags.

1. Suppose the carry, sign, zero, and overflow, aux carry, and parity flags are all initially zero, and then the following instructions are executed in order. After each instruction, write 0 or 1 to indicate whether each flag will be cleared or set after that instruction executes.

	Value in AH?	CF	SF	ZF	OF
	0	0	0	0	0
<code>mov ah, 0FFh</code>	_____	___	___	___	___
<code>add ah, 1</code>	_____	___	___	___	___
<code>sub ah, 1</code>	_____	___	___	___	___

2. (Same instructions.)

	Value in AH?	CF	SF	ZF	OF
	0	0	0	0	0
<code>mov ah, 0</code>	_____	___	___	___	___
<code>add ah, 1</code>	_____	___	___	___	___
<code>sub ah, 1</code>	_____	___	___	___	___
<code>add ah, -1</code>	_____	___	___	___	___
<code>sub ah, -1</code>	_____	___	___	___	___
<code>add ah, 0FFh</code>	_____	___	___	___	___
<code>sub ah, 0FFh</code>	_____	___	___	___	___

3. (Same instructions.)

	Value in AH?	CF	SF	ZF	OF
	0	0	0	0	0
<code>mov ah, 7Fh</code>	_____	___	___	___	___
<code>add ah, 10h</code>	_____	___	___	___	___
<code>mov ah, 80h</code>	_____	___	___	___	___
<code>sub ah, 1</code>	_____	___	___	___	___

4. (Same instructions.)

	Value in AX?	CF	SF	ZF	OF
	0	0	0	0	0
<code>mov ax, 7Fh</code>	_____	___	___	___	___
<code>add ax, 10h</code>	_____	___	___	___	___