

# Do Now: Change

1. 10010 in base 2 to base 10

2. 89 in base 10 to a binary number

How do we **add** *two binary numbers*?

$$\begin{array}{r} \text{Ex.} \quad 01101 \\ + 10111 \\ \hline \end{array}$$

- Add the numbers as you usually would
2. Remember to carry where appropriate
3. If the answer comes out to a:
- a. 2 – then write a 0 and carry a one
  - b. 3 – then write a 1 and carry a 1

- Add the following numbers in base 2:

$$\begin{array}{r} 1. \quad 10102. \quad 1113. \quad 101 \\ \quad \underline{+1111} \quad \underline{+111} \quad \underline{+110} \end{array}$$

How do we **subtract** *two binary numbers*?

Ex.     11101  
       + 10111  
                

- Subtract the numbers as you usually would

2. If you need to borrow – a 10 yields a 1

1. 10102. 1113. 101  
   -1111   - 111   - 110