

Challenge 1: Number Conversions

Convert the following **8-bit 2's complement** binary (b), decimal (#), or hexadecimal (x) numbers. Version 1

- 1. $b01001000 \rightarrow x$
- $2. \ \ \text{\#86} \ \rightarrow \ \text{b}$
- 3. $\mathbf{x9A} \rightarrow \mathbf{b} \rightarrow \mathbf{\#}$
- 4. $x7E \rightarrow b$
- 5. **b1100 1000** \rightarrow #
- 6. **#-28** \rightarrow b
- 7. **b0001 1110** \rightarrow #
- 8. $xFF \rightarrow #$
- 9. **b11010001** \rightarrow x



Challenge 1: Number Conversions

Convert the following **8-bit 2's complement** binary (b), decimal (#), or hexadecimal (x) numbers. Version 2

- 1. **#64** → x
- 2. **b01110111** \rightarrow #
- 3. $\mathbf{x3C} \rightarrow \mathbf{b}$
- 4. **b10101010** $\rightarrow x$
- 5. **#-32** → b
- 6. **#111** \to b
- 7. $\mathbf{x1F} \rightarrow \mathbf{b} \rightarrow \mathbf{\#}$
- 8. #92 \rightarrow x
- 9. **xB4** → #



Challenge 1: Number Conversions

Convert the following **8-bit 2's complement** binary (b), decimal (#), or hexadecimal (x) numbers. Version 3

- 1. **b00100011** → #
- 2. $x4A \rightarrow b$
- 3. **b11011111** \rightarrow x
- 4. **#86** → b
- 5. **#-8** → b
- 6. $xFE \rightarrow b \rightarrow #$
- 7. #91 \rightarrow b \rightarrow x
- 8. #48 \rightarrow x
- 9. $x41 \rightarrow #$



Challenge 1:

Number Conversions

- V1
- 1. x48
- 2. b0101 0110
- 3. #-102
- 4. b0111 1110
- 5. #-56
- 6. b1110 0100
- 7. #30
- 8. $111111111 \rightarrow \#-1$
- 9. xD1
- V2
 - 1. x40
 - 2. #119
 - 3. b0011 1100
 - 4. xAA
 - 5. b1110 0000
 - 6. b0110 1111
 - 7. $b0001\ 1111 \rightarrow #31$
 - 8. 5C
 - 9. **b1011 0100** → #-76
- V3
 - 1. #35
 - 2. b0100 1010
 - 3. xDF
 - 4. b0101 0110
 - 5. b1111 1000
 - 6. $b1111 \ 1110 \rightarrow \# -2$
 - 7. $b0101\ 1011 \rightarrow x5B$
 - 8. x30
 - 9. #65