

Homework Assignment 7

Pad

Pad the following numbers to a length of 8 digits.

1. $01010_2 \Rightarrow$
2. $1001_2 \Rightarrow$
3. $234_8 \Rightarrow$
4. $5611_8 \Rightarrow$
5. $44225_8 \Rightarrow$
6. $3746_8 \Rightarrow$
7. $646FAB_{16} \Rightarrow$
8. $A17_{16} \Rightarrow$
9. $12EDC_{16} \Rightarrow$
10. $8BA77_{16} \Rightarrow$

Trim

Trim the following numbers.

1. $000000111_2 \Rightarrow$
2. $111001001_2 \Rightarrow$
3. $77756512_8 \Rightarrow$
4. $77777123_8 \Rightarrow$
5. $0001234_8 \Rightarrow$
6. $0000435_8 \Rightarrow$
7. $00000AE_{16} \Rightarrow$
8. $00044BDA_{16} \Rightarrow$
9. $FFFF5521_{16} \Rightarrow$
10. $FFFFFEB7_{16} \Rightarrow$

Decimal to Signed Base

1. 73 to binary
2. -151 to binary
3. 4591 to octal
4. -3554 to octal
5. 21794 to hexadecimal
6. -60231 to hexadecimal

Signed Base to Decimal

1. 01010_2
2. 1001_2
3. 234_8
4. 5611_8
5. $646FAB_{16}$
6. $A17_{16}$

One's Complement

1. 01010_2
2. 1001_2
3. 234_8
4. 5611_8
5. $646FAB_{16}$
6. $A17_{16}$

Two's Complement

1. 01000_2
2. 1000_2
3. 345_8
4. 4774_8
5. $347DAB_{16}$
6. $B613_{16}$

Addition

1. $01000_2 + 1000_2$
2. $345_8 + 4774_8$
3. $347DAB_{16} + B613_{16}$

Subtraction

1. $01000_2 - 1000_2$
2. $345_8 - 4774_8$
3. $347DAB_{16} - B613_{16}$