COL_ASS6

1

1 51+77

00110011 + 01001101 = 11111111 (128) = 10000000 Ans

(-ve)

2 53-112

53 00110101

100100000

11000101 Ans

-ve verify equivalent to (00111010 + 1 = 00111011 = (59) ✓)

-112 = 01110000

10001111

+ 1

10010000

01111111 + 1 = 10000000 = -128 Ans (equivalent to)

3 35-23

00100011

11101001

00001100 = +12 Ans

+ve

00010111

11101000

11101001 = -23

4 87+12

01010111

00001100

01100011 = +99 Ans

+ve

5 -75-54

-75 = 01001011

10110100

+ 1

10110101

-54 = 00110110

11001001

+ 1

11001010

10110101

+ 1

11001010 (equivalent to)

01111111 = 127 Ans

+ve

2.1

1. $1 = 1 \times 2^0 = 1.000\ldots \times 2^0$

$127+0 = 127$

0 01111111 00000000000000000000000

2. $12.375 = 1100.011000\ldots$ (2^{-2}, 2^{-3})

$1.100011000\ldots \times 2^3$

$127+3 = 130$

0 10000010 10001100000000000000000

3. $-0.25 = (-)(0.01000\ldots) \times 2^0$ (2^{-2})

[illegible]

$= (-)1.000\ldots \times 2^{-2}$

$127-2 = 125$

1 01111101 00000000000000000000000