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Roll: 19P-0067
Section: BCS-5B

1) 100.875

$(100)_{16}$

2	100
2	50 - 0
2	25 - 0
2	12 - 1
2	6 - 0
2	3 - 0
	1 - 1

$(100)_{16}$ $(1100100)_2$

$.875 \times 2 = 1.75$

$.75 \times 2 = 1.5$

$.5 \times 2 = 1.0$

$(.875)_{10} = (.111)$

$(100.875) = (1100100.111)_2$

→ Exponent Part

$$11\ 0010\ 0\cdot111$$

total size 6 movement

Exponent = 6

Biased Exponent

6 + 127

$= (133)_{10}$

```
2 | 133
2 | 66 - 1
2 | 33 - 0
2 | 16 - 1
2 | 8 - 0
2 | 4 - 0
  | 2 - 0
  | 1 - 0
```

Mantissa = 1001 00111 0000000000000000

Result:

Mantissa

	0	10000101	1001001110000000000000000

sign bit   Exponent