

Floating Point Binary

Work out the denary for the following, assuming that there are 10 bits for the mantissa and 6 bits for the exponent:

1. 0.001101000 000110
2. 0 101000000 111111
3. 1 011111010 000101
4. 1 101000000 111101
5. 1 111111010 000011

Work out the binary floating point for the following, using 10 bits for the mantissa and 6 bits for the exponent:

6. 67
7. 23.25
8. 123.80
9. 128.25
10. -513

If you use 10 bits for the mantissa and 6 bits for the exponent what (in binary) is:

- a) The largest positive number?
- b) The smallest positive number?
- c) The largest negative number?
- d) The smallest negative number?