

Computer Programming Contest Multiple Choice Solutions
FAMAT State Convention 2003

- Thus, the answer is $6/32 = 6 \cdot (0.5)^5 = 0.1875$

9. B

Since the first bit is a 1, the number is negative and you must follow the following steps to get the decimal value:

- Take 11001110 and subtract 1 to get 11001101
- Then take the complement of each bit to get 00110010
- This is the opposite of the decimal value, which is -50

10. E

The FSA is equivalent to the regular expression: $0^*1(10 | 110^*10^*1)^*01^*$.
Choices A and B are subsets of the correct regular expression, while C and D are clearly incorrect.