

2018 - 2019

ACSL
American Computer Science League

Contest #1

Elementary Division

个人考号/Exam Code: _____

姓名/Name: _____

学校/School: _____

1. Computer Number Systems

1.

What is the octal equivalent for 2018_{16} ?

2. Computer Number Systems

2.

Which of the following has the least number of 1's in its binary representation?

254_8

139_{16}

44_{10}

3. Computer Number Systems

3.

Evaluate: $2AF4_{16} + 246_{16} - ABE_{16}$
Express the answer in hexadecimal.

4. Computer Number Systems

4.

How many binary numbers have the same number of 1's as 0's in the range of numbers from 1 to 15 in base 10 inclusive.
Note: ignore leading zeroes.

5. Computer Number Systems

5.

What is the decimal value of the blue component for a color that is represented by the hexadecimal number $F0893D_{16}$?

2018 - 2019

ACSL
American Computer Science League

Contest #1

Elementary Division

个人考号/Exam Code: _____

姓名/Name: _____

学校/School: _____

1. Computer Number Systems

2018_{16} 在八进制下如何表示?

1.

2. Computer Number Systems

下列哪一个在二进制表示中有最少的数字 1?

254_8

139_{16}

44_{10}

2.

3. Computer Number Systems

计算: $2AF4_{16} + 246_{16} - ABE_{16}$
用十六进制表示答案。

3.

4. Computer Number Systems

从 1 到 15 (十进制下) 中, 有多少个数在二进制表示下有相同数量的 0 和 1? 注: 忽略前导零。

4.

5. Computer Number Systems

用十六进制数字 $F0893D_{16}$ 表示的颜色中, 蓝色分量的十进制值是多少?

5.