

CS 105

Week 11 Part 10

CS 105

Week 11₂ Part 10₂

142

100s

10s

1s

1

4

2

$$\underline{10^2}$$

1

$$\underline{10^1}$$

4

$$\underline{10^0}$$

2

$$\frac{10^2}{100}$$

1

$$\frac{10^1}{10}$$

4

$$\frac{10^0}{1}$$

2

$$\frac{10^2}{100}$$

$$100$$

*

1

$$\frac{10^1}{10}$$

$$10$$

*

4

$$\frac{10^0}{1}$$

$$1$$

*

2

$$\frac{10^2}{100}$$

$$100$$

*

$$1$$

$$=100$$

$$\frac{10^1}{10}$$

$$10$$

*

$$4$$

$$\frac{10^0}{1}$$

$$1$$

*

$$2$$

$$\frac{10^2}{100}$$

$$100$$

*

$$1$$

$$=100$$

$$\frac{10^1}{10}$$

$$10$$

*

$$4$$

$$=40$$

$$\frac{10^0}{1}$$

$$1$$

*

$$2$$

$$\begin{array}{r} 10^2 \\ \hline 100 \\ * \\ 1 \\ =100 \end{array}$$

$$\begin{array}{r} 10^1 \\ \hline 10 \\ * \\ 4 \\ =40 \end{array}$$

$$\begin{array}{r} 10^0 \\ \hline 1 \\ * \\ 2 \\ =2 \end{array}$$

$$\frac{10^2}{100}$$

$$100$$

*

$$1$$

$$=100$$

$$\frac{10^1}{10}$$

$$10$$

*

$$4$$

$$=40$$

$$\frac{10^0}{1}$$

$$1$$

*

$$2$$

$$=2$$

$$=142$$

Base 2: “Binary”

101

2^2

2^1

2^0

1

0

1

$$\frac{2^2}{4}$$

1

$$\frac{2^1}{2}$$

0

$$\frac{2^0}{1}$$

1

$$\frac{2^2}{4}$$

4

*

1

$$\frac{2^1}{2}$$

2

*

0

$$\frac{2^0}{1}$$

1

*

1

$$\frac{2^2}{4}$$

4

*

1

$$\frac{2^1}{2}$$

2

*

0

$$\frac{2^0}{1}$$

1

*

1

$$\underline{2^2}$$

$$4$$

*

$$1$$

$$=4$$

$$\underline{2^1}$$

$$2$$

*

$$0$$

$$\underline{2^0}$$

$$1$$

*

$$1$$

$$\frac{2^2}{4}$$

$$4$$

*

$$1$$

$$=4$$

$$\frac{2^1}{2}$$

$$2$$

*

$$0$$

$$=0$$

$$\frac{2^0}{1}$$

$$1$$

*

$$1$$

$$\underline{2^2}$$

$$4$$

*

$$1$$

$$=4$$

$$\underline{2^1}$$

$$2$$

*

$$0$$

$$=0$$

$$\underline{2^0}$$

$$1$$

*

$$1$$

$$=1$$

$$\frac{2^2}{4}$$

$$4$$

$$*$$

$$1$$

$$=4$$

$$+$$

$$\frac{2^1}{2}$$

$$2$$

$$*$$

$$0$$

$$=0$$

$$+$$

$$\frac{2^0}{1}$$

$$1$$

$$*$$

$$1$$

$$=1$$

$$=5$$

$$\frac{2^3}{8}$$

$$\frac{2^2}{4}$$

$$\frac{2^1}{2}$$

$$\frac{2^0}{1}$$

$$\frac{2^3}{8}$$

$$\frac{2^2}{4}$$

$$\frac{2^1}{2}$$

$$\frac{2^0}{1}$$

8

4

2

1

What is the value of 1101_2 ?

A) 9

D) 12

B) 10

E) 13

C) 11

$$\frac{2^3}{8}$$

$$\frac{2^2}{4}$$

$$\frac{2^1}{2}$$

$$\frac{2^0}{1}$$

8

4

2

1

What is the value of 1101_2 ?

A) 9

D) 12

B) 10

E) 13

C) 11

ASCII

65: A

74: J

83: S

66: B

75: K

84: T

67: C

76: L

85: U

68: D

77: M

86: V

69: E

78: N

87: W

70: F

79: O

88: X

71: G

80: P

89: Y

72: H

81: Q

90: Z

73: I

82: R

Weekly Activity 4

Due: Monday, Sept. 22nd by 9:00am

MP2

Released: Tonight

Due: Tuesday, Sept. 23rd by 6:00pm

Functions, Part II

```
function rateSchool(school)
{
    if (school == "Illinois")
        return "Awesome";

    if (school == "ISU")
        return "Not so awesome...";

    return "Unknown";
}
```

```
var rating = rateSchool("ISU");  
print(rating);
```

```
var rating = rateSchool("ISU");  
print(rating);
```

```
function rateSchool(school)  
{  
    if (school == "Illinois")  
        return "Awesome";  
  
    if (school == "ISU")  
        return "Not so awesome...";  
  
    return "Unknown";  
}
```

```
var rating = rateSchool("ISU") ;  
print(rating) ;
```

```
function rateSchool(school)  
{  
    if (school == "Illinois")  
        return "Awesome";  
  
    if (school == "ISU")  
        return "Not so awesome...";  
  
    return "Unknown";  
}
```

```
var rating = rateSchool("ISU");  
print(rating);
```

```
function rateSchool(school)  
{  
    if (school == "Illinois")  
        return "Awesome";  
  
    if (school == "ISU")  
        return "Not so awesome...";  
  
    return "Unknown";  
}
```

```
function add(num1, num2)
{
    return num1 + num2;
}
```

```
function add(num1, num2)
{
    return num1 + num2;
}
```

```
var num = add(4, 7);
```

```
function add(num1, num2)  
{  
    return num1 + num2;  
}
```

```
var num = add(4, 7);
```

```
function add(num1, num2)
{
    return num1 + num2;
}
```

```
var num = add(4, 7);
```

Global Functions

Top-Level Functions

Properties on Variables

```
var s = "Hello";
```

```
var l = s.length;
```

Properties on Variables

_____.length

Functions on Variables

```
var str = "Hello";  
var c = str.charAt(1);
```

Functions on Variables

_____.charAt(_____)

Functions on Variables

str.charAt(index)

Count the Vowels

Count the Vowels

```
var str = "Hello";
```

Count the Vowels

```
var str = "Hello";  
var i = 0;  
while (i < str.length)  
{  
  
}
```

```
var str = "Hello";  
var i = 0;  
var count = 0;  
while (i < str.length)  
{  
    var c = str.charAt(i) ;  
}
```

```
var str = "Hello";  
var i = 0;  
var count = 0;  
while (i < str.length)  
{  
    var c = str.charAt(i);  
    if (isVowel(c))  
        count = count + 1;  
}
```

```
var str = "Hello";  
var i = 0;  
var count = 0;  
while (i < str.length)  
{  
    var c = str.charAt(i);  
    if (isVowel(c))  
        count = count + 1;  
}  
print("Vowels: " + count);
```

```
var str = "Hello";  
var i = 0;  
var count = 0;  
while (i < str.length)  
{  
    var c = str.charAt(i);  
    if (isVowel(c))  
        count = count + 1;  
}  
print("Vowels: " + count);
```