

```
// Section 1: Math with ints and floats
```

```
int i;  
uint u;  
float f;  
  
i = 2 + 2;           NSLog(@"Example 1A: %d",i);  
  
i = 2.0 + 2.0;       NSLog(@"Example 1B: %d",i);  
  
i = 2.4 + 2.5;       NSLog(@"Example 1C: %d",i);  
  
i = 5 / 6;           NSLog(@"Example 1D: %d",i);  
  
f = 5 / 6;           NSLog(@"Example 1E: %f",f);  
  
i = 5.0 / 6.0;       NSLog(@"Example 1F: %d",i);  
  
f = 5.0 / 6.0;       NSLog(@"Example 1G: %f",f);  
  
i = 5.0 / 6;         NSLog(@"Example 1H: %d",i);  
  
f = 5.0 / 6;         NSLog(@"Example 1I: %f",f);  
  
f = 3.0 + 5 / 6;     NSLog(@"Example 1J: %f",f);  
  
i = 5;  
  
u = i - 6;           NSLog(@"Example 1K: %u",u);
```

// Precedent and Parentheses

```
i = 3 + 4 * 5 + 6;      NSLog(@"Example 2A: %d",i);  
i = (3 + 4 * 5 + 6);    NSLog(@"Example 2B: %d",i);  
i = 3 + (4 * 5 + 6);    NSLog(@"Example 2C: %d",i);  
i = 3 + (4 * 5) + 6;    NSLog(@"Example 2D: %d",i);  
i = (3 + 4) * (5 + 6);  NSLog(@"Example 2E: %d",i);
```

// Tricky if statements

```
i = 5;  
  
if (i = 0)  
    {NSLog(@"Example 3A: It's true!");}  
else  
    {NSLog(@"Example 3A: It's false!");}  
  
if (i = 5)  
    {NSLog(@"Example 3B: It's true!");}  
else  
    {NSLog(@"Example 3B: It's false!");}  
  
if (i = 7)  
    {NSLog(@"Example 3C: It's true!");}  
else  
    {NSLog(@"Example 3C: It's false!");}
```

// True and False

```
if (((nil == NULL) && (nil == 0)) && ((nil == FALSE) && (nil == NO)))
    NSLog(@"Example 4A: They're all the same!");}
else
    NSLog(@"Example 4A: They're not all the same!");}

if (((TRUE == YES) && (TRUE == 1)) && (true == TRUE))
    NSLog(@"Example 4B: They're all the same!");}
else
    NSLog(@"Example 4B: They're not all the same!");}

if (1)
    NSLog(@"Example 4C: It's true!");}
else
    NSLog(@"Example 4C: It's false!");}

if (0)
    NSLog(@"Example 4D: It's true!");}
else
    NSLog(@"Example 4D: It's false!");}

if (-1)
    NSLog(@"Example 4E: It's true!");}
else
    NSLog(@"Example 4E: It's false!");}

if (57)
    NSLog(@"Example 4F: It's true!");}
else
    NSLog(@"Example 4F: It's false!");}

if (57 == TRUE)
    NSLog(@"Example 4G: It's true!");}
else
    NSLog(@"Example 4G: It's false!");}
```

```
// Common object tests
// The question is, "Does it print anything for 5A & 5B?"
```

```
NSObject *myObject = nil;
```

```
if (!myObject)
{
    NSLog(@"Example 5A: myObject is false");
    myObject = [NSObject new];
}
```

```
if (myObject)
{
    NSLog(@"Example 5B: myObject is true");
}
```

```
[myObject release];
```

```
// Conditional Operator
```

```
i = (0 ? 1 : 2);    NSLog(@"Example 6A: %d",i);
```

```
// Another tricky if statement puzzle
```

```
if (10)
    {NSLog(@"Example 7A: It's true!");}
else
    {NSLog(@"Example 7A: It's false!");}
```

```
if (TRUE)
    {NSLog(@"Example 7B: It's true!");}
else
    {NSLog(@"Example 7B: It's false!");}
```

```
if (true & 10)
    {NSLog(@"Example 7C: It's true!");}
else
    {NSLog(@"Example 7C: It's false!");}
```

```
// A switch statement!

i = 5;
f = 0;

switch (i) {
    case 5:
        f += i;

    case 4:
        f -= i + 3;

    case 3:
    case 2:
    case 1:
        f *= i + 4;

    default:
        f++;
}

NSLog(@"Example 8A: %f",f);
```

```
// Scoping fun!

i = 5;

{
    int i = 6;

    {
        int i = 7;

        NSLog(@"Example 9A: %d",i);
    }

    NSLog(@"Example 9B: %d",i);
}

NSLog(@"Example 9C: %d",i);
```

```
// Comparison operators

f = 3;

if (2 < f < 4)
    {NSLog(@"Example 10A: It's true!");}
else
    {NSLog(@"Example 10A: It's false!");}

f = .3;

if (.2 < f < .4)
    {NSLog(@"Example 10B: It's true!");}
else
    {NSLog(@"Example 10B: It's false!");}
```

```
// Leading zero
i = 053 - 42;          NSLog(@"Example 11A: %d",i);

// Ands and ors...

if (true && true || false && false)
    {NSLog(@"Example 12A: It's true!");}
else
    {NSLog(@"Example 12A: It's false!");}
```

```
// Comparing floats
```

```
float newFloat = 2;

if (newFloat == 2)
    {NSLog(@"Example 13A: It's true!");}
else
    {NSLog(@"Example 13A: It's false!");}

newFloat = 0;

if (newFloat == 0)
    {NSLog(@"Example 13B: It's true!");}
else
    {NSLog(@"Example 13B: It's false!");}

newFloat = 1.5;

if (newFloat == 1.5)
    {NSLog(@"Example 13C: It's true!");}
else
    {NSLog(@"Example 13C: It's false!");}

newFloat = 1.15;

if (newFloat == 1.15)
    {NSLog(@"Example 13D: It's true!");}
else
    {NSLog(@"Example 13D: It's false!");}
```