**44-542 Object Oriented Programming**

**Primitive Data Types 02**

1. Assume we have declared and initialized the following variables:

**int j = 100;**

**int k = 80;**

**int m = 25;**

**int n;**

**double s;**

What is stored in **n** after each statement?

(a) **n = j / k;**

(b) **n = j / m;**

(c) **n = k / m;**

What is stored in **s** after each statement?

(d) **s = ((double) j) / k;**

(e) **s = ((double) j) / m;**

(f) **s = ((double) k) / m;**

2. Assume we have declared and initialized the following variables:

**int a = 10;**

**int b = 20;**

**int c = 30;**

**int d;**

What is the value of each variable (**a**, **b**, **c** or **d**) after each of the statements has been executed? Start with the initial variables shown above in each case.

(a) **a++;**

**--b;**

**a += 4;**

**d = a \* b;**

(b) **a \*= 3;**

**b /= 5;**

**c %= 8;**

**d = a + b + c;**

3. Assume we have declared and initialized the following variables:

**double x = 2.0;**

**double y = 3.0;**

**double z = 4.0;**

**double n;**

What is stored in **n** after each statement?

(a) **n = Math.pow(x,z);**

(b) **n = Math.pow(z,x);**

(c) **n = Math.pow(2.4, 3.2);**

(d) **n = Math.sqrt(49.0);**

(e) **n = Math.sqrt(x + y + z);**

(f) **n = Math.sqrt(z);**

(g) **n = Math.round(z / y);**

(h) **n = Math.round(24.0 / 5.0);**

(i) **n = Math.round(21.0 / 5.0);**