1. Select the best answer for the following questions.

(a) (1 point) What is an operand?
   A. Another name for number.
   B. Another name for integer
   C. A symbol which causes computation to happen (e.g. *, +, -, /).
   D. A value that is acted upon by an operator.
   E. A syntactically valid combination of values, variables, and operators

(b) (1 point) Which of the following data types requires the most amount of memory?
   A. short
   B. double
   C. int
   D. byte
   E. float

(c) (1 point) Which of the following data types requires the least amount of memory?
   A. short
   B. double
   C. int
   D. byte
   E. float

(d) (1 point) Given the following variable declarations, which one of the following expressions will NOT evaluate to a double precision floating point value?

```c
short a = 9;
int b = 35;
float x = 5.6;
double y = 3.33;
```

   A. a + x
   B. 1.3 + 9.6
   C. a + b
   D. x / y
   E. b - y
2. (3 points) Choose **ALL** of the following which are valid assignment statements assuming x is an integer and y and z are doubles.

A. 5 = x;
B. x = 5;
C. x == 5;
D. x * 2 + y * 2 = z;
E. z = x * 2 + y * 2;
F. x = x - 2;
G. x = y;
H. y = x;
I. x <><![>/ ></> y;
J. x = 5.y;
K. x = 1.3;
L. y = 4 / 7.0;
M. x = int(y - z);

3. (4 points) Give the output of the following code:

```java
int x = 4;
int z = 7;
System.out.println( z++ - x );
System.out.println( --x + z++ );
System.out.println( x );
System.out.println( z );
```

4. (4 points) Give the output of the following code:

```java
int distance = 18;
int time = 12;
System.out.println( distance/time );
System.out.println( distance%time );
System.out.println( (double)distance/time );
System.out.println( (double)(distance/time) );
```