CSE 8A Lecture 16

- Reading for next class: 11.1-11.2
- Today's goals:
  - Review your Exam#3 (to prepare for Exam #4 on 3/8)
  - Practice writing and typing in code from scratch
  - Practice tracing code
  - Modifying data "in place"
- Individual programming PSA 8 (basics/loops/decisions) due Monday (3/4)

Exam 3

- Was hard, but many of you did great!!
- Stats:
  - Mean: 54% (Median 55%)
  - 20% of the class (62 students) >= 80% (16/20)
- If you scored 80% or above, NICE JOB! You are doing extremely well and should be very proud of your performance
- If you scored between 60 and 80, not bad. You're doing well. Keep working; you're on a good track.
- If you scored lower than a 60, it's time to PRACTICE
  - Write code (on paper)
  - Practice writing code and typing code by yourself
  - Come see instructors/TAs/Tutors for more help

Exam 3: 1) What gets printed?

```
System.out.println( (  2  -  3   /  4   +   5   %   2) );

System.out.println( (  2  -  5   /  4   +   5   %   2) );
System.out.println( (  2  -  9   /  4   +   5   %   2) );
System.out.println( (  2  +  3   /  4   +   5   %   2) );

System.out.println( ( -4 > 4  ||  !false) && ( 4 != 4 ) );

System.out.println( ( -4 < 4  &&  !false) ||( 4 != 4 ) );

System.out.println( ( -4 < 4  ||  !true) && ( 4 != 4 ) );
```

TABLE of PRECEDENCE and ASSOCIATIVITY

Operator	Associativity
- (unary)	right to left
* / %	left to right
+ -	left to right
< <= > >=	left to right
== !=	left to right
=	right to left

Exam 3: 2) What gets printed?

```
int  day = 1;

while( day++ < 4 )
     System.out.println( day );
```

---

a)
```
day = 2;
while( day++ < 5 )
    System.out.println( day );
```

---

b)
```
day = 3;
while( day-- > 0 )
    System.out.println( day );
```

---

c)
```
day = 4;
while( day-- > 1 )
    System.out.println( day );
```

Exam 3: **3)** Write a nested for loop that displays a right triangle as shown, with side length of 5, using "System.out.print()" and "System.out.println()"

OUTPUT:

```
X          X          XXXXX      XXXXXXX
XX         XXX        XXXX       XXXXX
XXX        XXXXX      XXX        XXX
XXXX       XXXXXXX    XX         X
XXXXX                 X
```

```
for(                                                    )
```

Exam 3: **4)** Rewrite the given code segment, using logical operators and only ONE if-else statement to compute the same.

```
int qz = 99;
if( qz > 0 )
  if( qz < 100 )
    System.out.println(“in”);
  else
    System.out.println("out");
```

Exam 3: **5)** FILL in the blanks with a **do** loop using logical operators that repeats prompting for input (see **OUTPUT**), until the character value is a 'n' or 'N'.

```
char answer = 'y';

__________________
{
                          // do loop repeats until answer is 'n' or 'N'
   System.out.print("Want to repeat program (y/n)? ");
                          // Code reads user character input into answer

}_____________________________________________________________ ;
```

OUTPUT:

```
Want to repeat program (y/n)?  Y
Want to repeat program (y/n)?  k
Want to repeat program (y/n)?  n
```

Exam 3: 3) What gets printed?

```
class E3c
{
  public static void main(String [] args)
  {
     String day = “Friday”;
     prt( );
     prt( 'A' );

     day = fun();
     System.out.println( fun(2.2) );
     System.out.println( day );
     prt( "TGIF" );
  }

  public static void prt( )          { System.out.println("done"); }
  public static void prt( double x ){ System.out.println(x); }
  public static void prt( int    k ){ System.out.println(k); }
  public static void prt( char   a ){ System.out.println(a); }
  public static void prt( String s ){ System.out.println(s); }

  public static String fun( )          { return "fun"; }
  public static double fun( int k )    { return 1.23; }
  public static char   fun( double x ){ return  'X'; }
}
```

Exam 3: 3) What gets printed?

```
class E3c
{
  public static void main(String [] args)
  {
     String day = “Friday”;
     prt( );
     prt( 'B' );

     day = fun();
     System.out.println( fun(2) );
     System.out.println( day );
     prt( "done" );
  }

  public static void prt( )          { System.out.println("TGIF"); }
  public static void prt( double x ){ System.out.println(x); }
  public static void prt( int    k ){ System.out.println(k); }
  public static void prt( char   a ){ System.out.println(a); }
  public static void prt( String s ){ System.out.println(s); }

  public static String fun( )          { return "fun"; }
  public static double fun( int k )    { return 1.23; }
  public static char   fun( double x ){ return  'X'; }
}
```

Exam 3: 3) What gets printed?

```
class E3c
{
  public static void main(String [] args)
  {
     String day = “Friday”;
     prt( 2 );
     day = fun();
     System.out.println( fun(2.2) );
     System.out.println( day );
     prt( "run" );
     prt( 3.14 );
  }

  public static void prt( )          { System.out.println("fun"); }
  public static void prt( double x ){ System.out.println(x); }
  public static void prt( int    k ){ System.out.println(k); }
  public static void prt( char   a ){ System.out.println(a); }
  public static void prt( String s ){ System.out.println(s); }

  public static String fun( )          { return "TGIF"; }
  public static double fun( int k )    { return 1.23; }
  public static char   fun( double x ){ return  'X'; }
}
```

Exam 3: 3) What gets printed?

```
class E3c
{
  public static void main(String [] args)
  {
     String day = “Friday”;
     System.out.println( fun(2.2) );
     prt( );

     day = fun();
     System.out.println( fun(2) );
     System.out.println( day );
     prt( 3 );
  }

  public static void prt( )          { System.out.println("fun"); }
  public static void prt( double x ){ System.out.println(x); }
  public static void prt( int    k ){ System.out.println(k); }
  public static void prt( char   a ){ System.out.println(a); }
  public static void prt( String s ){ System.out.println(s); }

  public static String fun( )          { return "TGIF"; }
  public static double fun( int k )    { return 1.23; }
  public static char   fun( double x ){ return  'X'; }
}
```

TODO

- Reading for next class: 11.1-11.2
- PSA8 due Monday
- Attend discussion sections for Exam#3 review to prepare for Exam#4