**R6.3** What do these code snippets print?

**a.** int result = 0;

for (int i = 1; i <= 10; i++) { result = result + i; }

System.out.println(result);

**b.** int result = 1;

for (int i = 1; i <= 10; i++) { result = i - result; }

System.out.println(result);

**c.** int result = 1;

for (int i = 5; i > 0; i--) { result = result \* i; }

System.out.println(result);

**d.** int result = 1;

for (int i = 1; i <= 10; i = i \* 2) { result = result \* i; }

System.out.println(result);

**R6.7** What do these loops print?

**a.** for (int i = 1; i < 10; i++) { System.out.print(i + " "); }

**b.** for (int i = 1; i < 10; i += 2) { System.out.print(i + " "); }

**c.** for (int i = 10; i > 1; i--) { System.out.print(i + " "); }

**d.** for (int i = 0; i < 10; i++) { System.out.print(i + " "); }

**e.** for (int i = 1; i < 10; i = i \* 2) { System.out.print(i + " "); }

**f.** for (int i = 1; i < 10; i++) { if (i % 2 == 0) { System.out.print(i + " "); } }

**R6.10** What is an “off-by-one” error? Give an example from your own programming experience.

**R6.11** What is a sentinel value? Give a simple rule when it is appropriate to use a numeric sentinel value.

**R6.6** Provide trace tables for these loops. (skip exercise a)

**b.**

int i = 0;

int j = 0;

int n = 0;

while (i < 10)

{

i++;

n = n + i + j;

j++;

}

**c.**

int i = 10;

int j = 0;

int n = 0;

while (i > 0)

{

i--;

j++;

n = n + i - j;

}

**d.**

int i = 0;

int j = 8;

int n = 0;

while (i != j)

{

i = i + 2;

j = j - 2;

n++;

}