Introduction to Java
Unit 3.   Exercises

1. a =	int a = 13 % 10;
2. b =	int b = 15 % 5;
3. c =	double c = 8 % 10;
4. d =	int d = 36 % 12;
5. e =	double e = 7 % 4;

6. What is displayed?	int num = 7;
	while (num <= 10) {
	    System.out.print(num + " ");
	    num++;
	}

7. What is displayed?	int num = 7;
	while (num <= 10) {
	    num++;
	    System.out.print(num + " ");
	}

8. What is displayed?	int num = 7;
	while (num > 5) {
	    num--;
	    System.out.print(num + " ");
	}

9. What is displayed?	int h = 6;
	while (h < 10){
	    System.out.print(h % 3 + " ");
	    h++;
	}

10. What is displayed?	int x = 2;
	while (x <= 25) {
	    System.out.print(x + " ");
	    x = 2*x;
	}
	System.out.println(x);

11. What is displayed?	int x = 5;
	int n = 1;
	while (n <= 3) {
	    x = 2*x;
	    n++;
	    System.out.print(x+ " ");
	}

| 12. What is displayed? | ```
int x = 1;
int y;
System.out.println( "y = 3x - 1" );
while ( x <= 3 ) {
        y = 3*x - 1;
        System.out.println( "if x = " + x + ", y = " + y );
        x++;
}
``` |
| --- | --- |

| 13. What is displayed? | ```
for ( int j = 1; j <= 4; j++ ) {
        System.out.print( j + ", ");
}
``` |
| --- | --- |
| 14. What is displayed? | ```
for ( int n = 0; n <= 10; n = n + 2 ) {
        System.out.print( n + ", ");
}
``` |
| 15. What is displayed? | ```
for ( int k = 5; k >= 0; k-- ) {
        System.out.print( k + ", ");
}
``` |
| 16. What is displayed? | ```
for ( int x = 0; x <= 2; x ++ ) {
        int y = 3 * x - 2;
        System.out.println( "x = " + x + ", y = " + y );
}
``` |
| 17. What is displayed? | ```
int answer = 1;
for ( int j = 1; j <= 4; j++ ) {
        answer = 3 * answer;
}
System.out.println( answer );
``` |
| 18. What is displayed? | ```
for ( int k = 6; k < 14; k ++ ){
        System.out.print( k%3 + " " );
}
``` |

| 19. The code to the right is executed and four numbers are printed. If the last number is 17, what might the first three numbers be? | ```
int num = 0;
while ( num < 15 ){
        int w = (int)( 8*Math.random()) + 2;
        num += w;
        System.out.println( w );
}
System.out.println( num );
``` |
| --- | --- |

| 20. If the code to the right prints:<br>     2      6      10<br><br>Name all the possible integer values that *h* might be. | ```
// h is declared and initialized

for ( int n = 2; n <= h; n += 4 )
        System.out.print( n + " " );
``` |
| --- | --- |