

18. State the output.

```
class Exercise3_6 {
    public static void main() {
        System.out.println(Math.abs(-2.56) );
        System.out.println(Math.pow(1.1 , 2) );
        System.out.println(Math.sqrt(0.0036) );
        System.out.println(Math.floor(5.681) );
        System.out.println(Math.ceil(5.681) );
        System.out.println(Math.round(5.681) );
        System.out.println(Math.pow(2, -2) );
        System.out.println(Math.pow(64,0.5) );
        System.out.println(Math.PI );
    } // main
} // end class
```

19. State the output. Describe the rounding and casting (int) processes.

```
class Exercise3_7 {
    public static void main() {
        float x = 23.729f;
        System.out.println("x = " + x );
        float y = 100 * x;
        System.out.println(y);
        int z = (int)y;
        System.out.println(z);
        int w = (int)Math.round(y);
        System.out.println(w);
        float p = z / 100.00f;
        int r = (int) Math.round(p);
        System.out.println(r);
        int q = (int)p;
        System.out.println(q);
    } // main
} // end class
```

20. Evaluate the following Java statements. (All statements are independent.)

int a = 100, b = 10;

a += b; _____ a -= b; _____ a *= b; _____

a /= b; _____ a %= b; _____ a += ++b; _____

a += b++; _____ a %= --b - 3; _____ a *= a / 4; _____

21. Re-write the following assignment statements in their short form.

(a) x = x + 10; (b) x = x - 5; (c) x = x * 100; (d) x = x / 20;

(e) x = x % 2; (f) x = x + 1; (g) x = x - 1; (h) x = -1 * x;