

Math Trig Example

```
import java.lang.*;

public class Main {

    public static void main(String[] args) {

        // get two double numbers in degrees
        double x = 45.0;
        double y = 180.0;

        // convert degrees to radians
        x = Math.toRadians(x);
        y = Math.toRadians(y);

        // print their cosine values
        System.out.println("Math.cos(" + x + ")=" + Math.cos(x));
        System.out.println("Math.cos(" + y + ")=" + Math.cos(y));

        System.out.println("\n\n");

        //using a cosine value (go backwards)
        y = 0.7071067811865476;
        x = Math.acos(y);
        System.out.println("Math.arccos(" + y + ")=" + x + " radians");
        x = Math.toDegrees(x);
        System.out.println("Math.arccos(" + y + ")=" + x + " degrees");
    }
}
```

```
Math.cos(0.7853981633974483)=0.7071067811865476
Math.cos(3.141592653589793)=-1.0
```

```
Math.arccos(0.7071067811865476)=0.7853981633974483 radians
Math.arccos(0.7071067811865476)=45.0 degrees
```