```java
/** A shipping company uses the following function to calculate the cost
 * (in dollars) of shipping based on the weight of the package (in
 * pounds).
 *
 *                          3.50 * w, if 0 < w < = 1
 *                          5.50 * w, if 1 < w < = 3
 *               c(w) =     8.50 * w, if 3 < w < = 10
 *                         10.50 * w, if 10 < w < = 20
 *                         15.25 * w, if w > 20.
 *
 * Write a program that prompts the user to enter the weight of the
 * package and displays the shipping cost.
 *
 * @author Mr. Dagler
 */

import java.util.Scanner;

public class ShippingCosts {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);

        System.out.print("Enter the weight of the package: ");
        double weight = in.nextDouble();

        System.out.println("The shipping cost is $"
        + shippingCost(weight));
    }

    /** This finds the shipping cost of a package.
     *
     * Precondition: The weight [w] is greater then zero.
     * Postcondition: The total shipping cost is returned.
     */
    static double shippingCost(double w)
    {
        double cost;

        if(w <= 1.0)
            cost = 3.5*w;
        else if(w <= 3.0)
            cost = 5.5*w;
        else if(w <= 10.0)
            cost = 8.5*w;
        else if(w <= 20.0)
            cost = 10.5*w;
        else
            cost = 15.25*w;

        return cost;
```

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51          }
52      }
53
```