Digital 81b Warming Filter Conversion

```
function calculate() {
        // Get the user's input from the form. Assume it is all valid
        var skintone = getElement("skintone");
        var kelvin = parseInt(skintone.kelvin.value);
        // Get named <span> elements from the form.
        var conversion = document.getElementById("conversion");
        var a81 = document.getElementById("f_81a");
        var b81 = document.getElementById("f_81b");
        var c81 = document.getElementById("f_81c");
        var d81 = document.getElementById("f_81d");
        var e81 = document.getElementById("f_81e");

        // Check that the kelvin value is a finite number. If so, display the
        // filters by setting the HTML content of each <span> element.
        if (isFinite(kelvin) && kelvin>0) {
                // calculate the new kelvin value with a mired shift of 27
                // to simulate the mired shift of an 81b warming filter
                var new_kelvin = 1000000/((1000000/kelvin)-27);
                conversion.innerHTML = new_kelvin.toFixed(0);
                // 81a filter
                new_kelvin = 1000000/((1000000/kelvin)-18);
                a81.innerHTML = "81A = " + new_kelvin.toFixed(0) + " K";
                // 81b filter
```

```
            new_kelvin = 1000000/((1000000/kelvin)-27);
            b81.innerHTML = "81B = " + new_kelvin.toFixed(0) + " K";
            // 81c filter
            new_kelvin = 1000000/((1000000/kelvin)-35);
            c81.innerHTML = "81C = " + new_kelvin.toFixed(0) + " K";
            // 81d filter
            new_kelvin = 1000000/((1000000/kelvin)-42);
            d81.innerHTML = "81D = " + new_kelvin.toFixed(0) + " K";
            // 81ef filter
            new_kelvin = 1000000/((1000000/kelvin)-52);
            e81.innerHTML = "81EF = " + new_kelvin.toFixed(0) + " K";
        }
        // Otherwise, the user's input was probably invalid, so display nothing.
        else {
            conversion.innerHTML = "";
            a81.innerHTML = "";
            b81.innerHTML = "";
            c81.innerHTML = "";
            d81.innerHTML = "";
            e81.innerHTML = "";
        }
}
```