## Exercise 80

Simplifying Absolute Value Express the quantity without using absolute value.

$$
|1-\sqrt{2}|
$$

## Solution

Since $\sqrt{2}$ is about $1.414,1-\sqrt{2}$ is less than zero. The absolute value sign, then, can be removed only if a minus sign is placed in front of the quantity.

$$
|1-\sqrt{2}|=-(1-\sqrt{2})=\sqrt{2}-1
$$

