

```
LogReduce[ $\mathcal{E}$ _] :=  $\mathcal{E}$  /.  $c$ _ * Log[ $a$ _]  $\Rightarrow$  Log@Factor[ $a^c$ ] /. Log[ $a$ _] + Log[ $b$ _]  $\Rightarrow$  Log@Factor[ $a b$ ];
```

```
CF[ $\mathcal{E}$ _] := Expand@Collect[ $\mathcal{E}$ , Cases[ $\mathcal{E}$ , VarPattern,  $\infty$ ], CCF] /. CCF  $\rightarrow$  Factor;
```

```
CF[ $\mathcal{E}$ _E] := CF /@ MapAt[LogReduce,  $\mathcal{E}$ , 1];
```

```
CF[ $\mathcal{E}$  : E__[___]] := CF /@  $\mathcal{E}$ ;
```