

Pensieve header: Some broken doubles.

```
In[*]:= SetDirectory["C:\\drorbn\\AcademicPensieve\\Projects\\SL2Invariant"];
<< SL2Invariant.m
$k = 1;
```

This is Profile.m of <http://www.drorbn.net/AcademicPensieve/Projects/Profile/>.

This version: June 2018. Original version: July 1994.

The original double:

```
In[*]:= (E[βi bi + αj aj, ηi yi + ξj xj, 1] (aΔi→1,2 ~ B2 ~ aΔ2→2,3 ~ B3 ~ aS3) (bΔj→-1,-2 ~ B-2 ~ bΔ-2→-2,-3) ~
B-3,-2,-1,1,2,3,i,j ~ (P-1,3 P-3,1 am2,j→k bmi,-2→k)
```

```
Out[*]:= E[ak αi + ak αj + bk βi + bk βj,  $\frac{1}{\hbar \mathcal{A}_i \mathcal{A}_j}$ 
(ħ yk Ai Aj ηi + ħ yk Aj ηj + ħ xk Ai ξi + Ai Aj ηj ξi - Bk Ai Aj ηj ξi + ħ xk Ai Aj ξj),
1 +  $\frac{1}{4 \hbar \mathcal{A}_i \mathcal{A}_j}$  (-4 ħ yk Aj βi ηj - 4 ħ xk Ai βj ξi + 4 γ ħ2 xk yk ηj ξi +
4 ħ ak Bk Ai Aj ηj ξi + 2 γ ħ yk Aj ηj2 ξi - 6 γ ħ Bk yk Aj ηj2 ξi + 2 γ ħ xk Ai ηj ξi2 -
6 γ ħ Bk xk Ai ηj ξi2 + γ Ai Aj ηj2 ξi2 - 4 γ Bk Ai Aj ηj2 ξi2 + 3 γ Bk2 Ai Aj ηj2 ξi2) ∈ + O[ε]2]
```

```
In[*]:= (E[βi bi + αj aj, ηi yi + ξj xj, 1] (aΔi→1,2 ~ B2 ~ aΔ2→2,3 ~ B3 ~ aS3) (bΔj→-1,-2 ~ B-2 ~ bΔ-2→-2,-3) ~
B-3,-2,-1,1,2,3,i,j ~ (P-1,3 P-3,1 am2,j→k bmi,-2→k)
```

```
Out[*]:= E[ak αi + ak αj + bk βi + bk βj,  $\frac{1}{\hbar \mathcal{A}_i \mathcal{A}_j}$ 
(ħ yk Ai Aj ηi + ħ yk Aj ηj + ħ xk Ai ξi + Ai Aj ηj ξi - Bk Ai Aj ηj ξi + ħ xk Ai Aj ξj), 1 +
 $\frac{1}{4 \hbar \mathcal{A}_i \mathcal{A}_j}$  (-4 ħ yk Aj βi ηj + 4 γ ħ2 xk yk ηj ξi + 2 γ ħ yk Aj ηj2 ξi - 6 γ ħ Bk yk Aj ηj2 ξi + 2 γ ħ xk Ai ηj ξi2 -
2 γ ħ Bk xk Ai ηj ξi2 + γ Ai Aj ηj2 ξi2 - 4 γ Bk Ai Aj ηj2 ξi2 + 3 γ Bk2 Ai Aj ηj2 ξi2) ∈ + O[ε]2]
```