Pensieve header: Tbar games - $\bar{T}=(T-1)/h$.

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Series[(1 - T^2 e^(-2 ϵ a ħ)) / ħ, {a, 0, 3}]
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$$\frac{1-T^2}{\hbar}+2\,T^2\,\epsilon\,a-2\left(T^2\,\epsilon^2\,\hbar\right)a^2+\frac{4}{3}\,T^2\,\epsilon^3\,\hbar^2\,a^3+O[a]^4$$

```
Simplify[(1 - T^2 e^(-2 ϵ a ħ)) / ħ /. T → 1 + ħ Tb]
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$$\frac{1-e^{-2\,a\,\epsilon\,\hbar}\left(1+\hbar\,\overline{T}\right)^2}{\hbar}$$

```
Simplify[(1 - T^2)/ħ /. T → 1 + ħ Tb]
```

$$-\overline{T}\left(2+\hbar\,\overline{T}\right)$$

```
Simplify[Series[(1 - T^2 e^(-2 ϵ a ħ)) / ħ, {a, 0, 3}] /. T → 1 + ħ Tb]
```

$$-\overline{T}\left(2+\hbar\,\overline{T}\right)+2\,\epsilon\left(1+\hbar\,\overline{T}\right)^2a-2\left(\hbar\left(\epsilon+\epsilon\,\hbar\,\overline{T}\right)^2\right)a^2+O[a]^4$$

```
Simplify[(T - 1)/ħ /. T → T^-1 /. T → 1 + ħ Tb]
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$$-\frac{\overline{T}}{1+\hbar\,\overline{T}}$$