Weyl symbol

Let

$$H(p,q) = \int \varphi(\alpha,\beta) e^{i\alpha p + i\beta q} d\alpha d\beta$$

and operator

$$\hat{H}(p,q) = \int \varphi(\alpha,\beta) e^{i\alpha \hat{p} + i\beta \hat{q}} d\alpha d\beta$$

then we say that H is Weyl symbol of $\hat{H}$.

One can see that this is equivalent to the fact that roughly speaking to obtain Weyl we symmetrize the operator. E.g.

$$\text{Weyl symbol of} (p^2 q) \frac{1}{3} \left(ppq + pqp + qpp\right) = \frac{1}{3} \left(\hat{p}\hat{p}\hat{q} + \hat{p}\hat{q}\hat{p} + \hat{q}\hat{p}\hat{p}\right) =$$