

Solution

24

$$\begin{aligned} &+ 28 \cos(u) + 28 \cos(v) \\ &+ 4 \cos(2u) + 4 \cos(2v) \\ &+ 16 \cos(u+v) + 16 \cos(u-v) \\ &+ 2 \cos(2u+v) + 2 \cos(2u-v) \\ &+ 2 \cos(u+2v) + 2 \cos(u-2v) \end{aligned}$$