$$
\begin{aligned}
&\textit{Coordinates}\\
&\textit{Co}: \ (\frac{1}{3},\frac{2}{3},\frac{1}{6}),(1,1,\frac{1}{2}),(\frac{2}{3},\frac{1}{3},\frac{5}{6})\\
&\textit{O}: \ (0,0,\frac{23959}{100000}),(\frac{2}{3},\frac{1}{3},\frac{3}{32}),(\frac{2}{3},\frac{1}{3},\frac{14323}{25000}),(\frac{1}{3},\frac{2}{3},\frac{10677}{25000}),(\frac{1}{3},\frac{2}{3},\frac{29}{32}),(0,0,\frac{76041}{100000})\\
&\textit{Li}: \ (0,0,0),(\frac{2}{3},\frac{1}{3},\frac{1}{3}),(\frac{1}{3},\frac{2}{3},\frac{2}{3})\\
&\textit{Reflections}: \ (0,0,1),(0,0,2),(0,0,3),(0,0,4),(1,0,0),(1,0,1),\\
&\quad (1,0,2),(1,0,3),(2,1,0),(1,1,1),(1,1,2),(1,1,3),\\
&\quad (2,0,0),(2,0,1),(2,0,2),(2,0,3),(2,1,0),(2,1,1),\\
&\quad (2,1,2),(2,1,3),(3,0,0),(3,0,1),(3,0,2)
\end{aligned}
$$

$$
\begin{aligned}
F_{hkl} = \ & f_{Co}(e^{2\pi i(\frac{h}{3}+\frac{2\cdot k}{3}+\frac{l}{6})}+e^{2\pi i(h+k+\frac{l}{2})}+e^{2\pi i(\frac{2\cdot h}{3}+\frac{k}{3}+\frac{5\cdot l}{6})})\\
&+f_{O}(e^{2\pi i(0+0+\frac{23959\cdot l}{100000})}+e^{2\pi i(\frac{2\cdot h}{3}+\frac{k}{3}+\frac{3\cdot l}{32})}+e^{2\pi i(\frac{2\cdot h}{3}+\frac{k}{3}+\frac{14323\cdot l}{25000})}+e^{2\pi i(\frac{h}{3}+\frac{2\cdot k}{3}+\frac{10677\cdot l}{25000})}\\
&+e^{2\pi i(\frac{h}{3}+\frac{2\cdot k}{3}+\frac{29\cdot l}{32})}+e^{2\pi i(0+0+\frac{76041\cdot l}{100000})})\\
&+f_{Li}(e^{2\pi i(0+0+0)}+e^{2\pi i(\frac{2\cdot h}{3}+\frac{k}{3}+\frac{l}{3})}+e^{2\pi i(\frac{h}{3}+\frac{2\cdot k}{3}+\frac{2\cdot l}{3})})\\
= \ & f_{Co}(e^{2\pi i(\frac{h}{3}+\frac{2\cdot k}{3}+\frac{l}{6})}+e^{2\pi i(h+k+\frac{l}{2})}+e^{2\pi i(\frac{2\cdot h}{3}+\frac{k}{3}+\frac{5\cdot l}{6})})\\
&+f_{O}(e^{2\pi i(\frac{23959\cdot l}{100000})}+e^{2\pi i(\frac{2\cdot h}{3}+\frac{k}{3}+\frac{3\cdot l}{32})}+e^{2\pi i(\frac{2\cdot h}{3}+\frac{k}{3}+\frac{14323\cdot l}{25000})}+e^{2\pi i(\frac{h}{3}+\frac{2\cdot k}{3}+\frac{10677\cdot l}{25000})}\\
&+e^{2\pi i(\frac{h}{3}+\frac{2\cdot k}{3}+\frac{29\cdot l}{32})}+e^{2\pi i(\frac{76041\cdot l}{100000})})\\
&+f_{Li}(e^{2\pi i(0)}+e^{2\pi i(\frac{2\cdot h}{3}+\frac{k}{3}+\frac{l}{3})}+e^{2\pi i(\frac{h}{3}+\frac{2\cdot k}{3}+\frac{2\cdot l}{3})})
\end{aligned}
$$

$$
\begin{aligned}
F_{001} = \; & f_{Co}(e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{1}{6})} + e^{2\pi i(0+0+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{5\cdot 1}{6})}) \\
& + f_{O}(e^{2\pi i(0+0+\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{1}{3})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{1}{6})} + e^{2\pi i(0+0+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{5\cdot 1}{6})}) \\
& + f_{O}(e^{2\pi i(\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{1}{3})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{6})} + e^{2\pi i(\frac{1}{2})} + e^{2\pi i(\frac{5}{6})}) \\
& + \quad f_{O}(e^{2\pi i(\frac{23959}{100000})} + e^{2\pi i(\frac{3}{32})} + e^{2\pi i(\frac{14323}{25000})} + e^{2\pi i(\frac{10677}{25000})} \\
& + e^{2\pi i(\frac{29}{32})} + e^{2\pi i(\frac{76041}{100000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{1}{3})} + e^{2\pi i(\frac{2}{3})}) \\
= \; & f_{Co}([0.5 + (0.86603)i] + -1 + [0.5 + (-0.86603)i]) \\
& + \quad f_{O}([0.06536 + (0.99786)i] + [0.83147 + (0.55557)i] \\
& \quad + [-0.89686 + (-0.44231)i] + [-0.89686 + (0.44231)i] \\
& \quad + [0.83147 + (-0.55557)i] + [0.06536 + (-0.99786)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
= \; & 6.506960965675657e-05 f_{O}
\end{aligned}
$$

$$
\begin{aligned}
F_{002} = \; & f_{Co}(e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2}{6})} + e^{2\pi i(0+0+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{5\cdot 2}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{2}{3})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2}{6})} + e^{2\pi i(0+0+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{5\cdot 2}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{2}{3})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{3})} + e^{2\pi i(1)} + e^{2\pi i(\frac{5}{3})}) \\
& + \quad f_O(e^{2\pi i(\frac{23959}{50000})} + e^{2\pi i(\frac{3}{16})} + e^{2\pi i(\frac{14323}{12500})} + e^{2\pi i(\frac{10677}{12500})} \\
& + e^{2\pi i(\frac{29}{16})} + e^{2\pi i(\frac{76041}{50000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2}{3})} + e^{2\pi i(\frac{4}{3})}) \\
= \; & f_{Co}([-0.5 + (0.86603)i] + 1 + [-0.5 + (-0.86603)i]) \\
& + \quad f_O([-0.99146 + (0.13044)i] + [0.38268 + (0.92388)i] \\
& \quad + [0.60873 + (0.79338)i] + [0.60873 + (-0.79338)i] \\
& \quad + [0.38268 + (-0.92388)i] + [-0.99146 + (-0.13044)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
= \; & 8.83277971748253e-05 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{003} = \; & f_{Co}(e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{3}{6})} + e^{2\pi i(0+0+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3}{3})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{3}{6})} + e^{2\pi i(0+0+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3}{3})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{2})} + e^{2\pi i(\frac{3}{2})} + e^{2\pi i(\frac{5}{2})}) \\
& + \quad f_O(e^{2\pi i(\frac{71877}{100000})} + e^{2\pi i(\frac{9}{32})} + e^{2\pi i(\frac{42969}{25000})} + e^{2\pi i(\frac{32031}{25000})} \\
& + e^{2\pi i(\frac{87}{32})} + e^{2\pi i(\frac{2.2812}{1})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(1)} + e^{2\pi i(2)}) \\
= \; & f_{Co}(-1 + -1 + -1) \\
& + \quad f_O([-0.19497 + (-0.98081)i] + [-0.19509 + (0.98079)i] \\
& \quad + [-0.19503 + (-0.9808)i] + [-0.19503 + (0.9808)i] \\
& \quad + [-0.19509 + (-0.98079)i] + [-0.19497 + (0.98081)i]) \\
& + \quad f_{Li}(1 + 1 + 1) \\
= \; & 3f_{Co} - 1.1701721809067713 f_O + 3f_{Li}
\end{aligned}
$$

$$
\begin{aligned}
F_{004} = \; & f_{Co}(e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{4}{6})} + e^{2\pi i(0+0+\frac{4}{2})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{5\cdot 4}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 4}{100000})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3\cdot 4}{32})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{14323\cdot 4}{25000})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 4}{25000})} \\
& + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 4}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 4}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{4}{3})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 4}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{4}{6})} + e^{2\pi i(0+0+\frac{4}{2})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{5\cdot 4}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 4}{100000})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{3\cdot 4}{32})} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{14323\cdot 4}{25000})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 4}{25000})} \\
& + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 4}{32})} + e^{2\pi i(\frac{76041\cdot 4}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 0}{3}+\frac{0}{3}+\frac{4}{3})} + e^{2\pi i(\frac{0}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 4}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3})} + e^{2\pi i(2)} + e^{2\pi i(\frac{10}{3})}) \\
& + \; f_O(e^{2\pi i(\frac{23959}{25000})} + e^{2\pi i(\frac{3}{8})} + e^{2\pi i(\frac{14323}{6250})} + e^{2\pi i(\frac{10677}{6250})} \\
& + e^{2\pi i(\frac{29}{8})} + e^{2\pi i(\frac{76041}{25000})}) \\
& + \; f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{4}{3})} + e^{2\pi i(\frac{8}{3})}) \\
= \; & f_{Co}([-0.5 + (-0.86603)i] + 1 + [-0.5 + (0.86603)i]) \\
& + \; f_O([0.96597 + (-0.25866)i] + [-0.70711 + (0.70711)i] \\
& + [-0.2589 + (0.9659)i] + [-0.2589 + (-0.9659)i] \\
& + [-0.70711 + (-0.70711)i] + [0.96597 + (0.25866)i]) \\
& + \; f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
= \; & 7.513663179392616e-05 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{100} = \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{0}{6})} + e^{2\pi i(1+0+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{5\cdot 0}{6})}) \\
& + f_{O}(e^{2\pi i(0+0+\frac{23959\cdot 0}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3\cdot 0}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{14323\cdot 0}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 0}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 0}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{0}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{0}{6})} + e^{2\pi i(1+0+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{5\cdot 0}{6})}) \\
& + f_{O}(e^{2\pi i(\frac{23959\cdot 0}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3\cdot 0}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{14323\cdot 0}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 0}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 0}{32})} + e^{2\pi i(\frac{76041\cdot 0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{0}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{3})} + e^{2\pi i(1)} + e^{2\pi i(\frac{2}{3})}) \\
& + \quad f_{O}(e^{2\pi i(0)} + e^{2\pi i(\frac{2}{3})} + e^{2\pi i(\frac{2}{3})} + e^{2\pi i(\frac{1}{3})} \\
& + e^{2\pi i(\frac{1}{3})} + e^{2\pi i(0)}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2}{3})} + e^{2\pi i(\frac{1}{3})}) \\
= \; & f_{Co}([-0.5 + (0.86603)i] + 1 + [-0.5 + (-0.86603)i]) \\
& + \quad f_{O}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (-0.86603)i] \\
& \quad + [-0.5 + (0.86603)i] + [-0.5 + (0.86603)i] \\
& \quad + 1) \\
& + \quad f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
= \; & 0(ForbiddenReflection)
\end{aligned}
$$

$$
\begin{aligned}
F_{101} = \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{1}{6})} + e^{2\pi i(1+0+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{1}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{1}{6})} + e^{2\pi i(1+0+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{1}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{2})} + e^{2\pi i(\frac{3}{2})} + e^{2\pi i(\frac{3}{2})}) \\
& + \quad f_O(e^{2\pi i(\frac{23959}{100000})} + e^{2\pi i(\frac{73}{96})} + e^{2\pi i(\frac{92969}{75000})} + e^{2\pi i(\frac{57031}{75000})} \\
& + e^{2\pi i(\frac{119}{96})} + e^{2\pi i(\frac{76041}{100000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(1)} + e^{2\pi i(1)}) \\
= \; & f_{Co}(-1 + -1 + -1) \\
& + \quad f_O([0.06536 + (0.99786)i] + [0.0654 + (-0.99786)i] \\
& \quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
& \quad + [0.0654 + (0.99786)i] + [0.06536 + (-0.99786)i]) \\
& + \quad f_{Li}(1 + 1 + 1) \\
= \; & 3f_{Co} + 0.3922933805869383 f_O + 3f_{Li}
\end{aligned}
$$

$$
\begin{aligned}
F_{102} = \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2}{6})} + e^{2\pi i(1+0+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{5\cdot 2}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{2}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2}{6})} + e^{2\pi i(1+0+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{5\cdot 2}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{2}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3})} + e^{2\pi i(2)} + e^{2\pi i(\frac{7}{3})}) \\
& + \quad f_O(e^{2\pi i(\frac{23959}{50000})} + e^{2\pi i(\frac{41}{48})} + e^{2\pi i(\frac{67969}{37500})} + e^{2\pi i(\frac{44531}{37500})} \\
& + e^{2\pi i(\frac{103}{48})} + e^{2\pi i(\frac{76041}{50000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{4}{3})} + e^{2\pi i(\frac{5}{3})}) \\
= \; & f_{Co}([-0.5 + (-0.86603)i] + 1 + [-0.5 + (0.86603)i]) \\
& + \quad f_O([-0.99146 + (0.13044)i] + [0.60876 + (-0.79335)i] \\
& \quad + [0.38272 + (-0.92386)i] + [0.38272 + (0.92386)i] \\
& \quad + [0.60876 + (0.79335)i] + [-0.99146 + (-0.13044)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
= \; & 5.553516419576354e-05 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{103} = \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{3}{6})} + e^{2\pi i(1+0+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{3}{6})} + e^{2\pi i(1+0+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{0}{3}+\frac{3}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{5}{6})} + e^{2\pi i(\frac{5}{2})} + e^{2\pi i(\frac{19}{6})}) \\
& + \quad f_O(e^{2\pi i(\frac{71877}{100000})} + e^{2\pi i(\frac{91}{96})} + e^{2\pi i(\frac{2.3854}{1})} + e^{2\pi i(\frac{1.6146}{1})} \\
& + e^{2\pi i(\frac{293}{96})} + e^{2\pi i(\frac{2.2812}{1})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{5}{3})} + e^{2\pi i(\frac{7}{3})}) \\
= \; & f_{Co}([0.5 + (-0.86603)i] + -1 + [0.5 + (0.86603)i]) \\
& + \quad f_O([-0.19497 + (-0.98081)i] + [0.94693 + (-0.32144)i] \\
& \quad + [-0.75188 + (0.6593)i] + [-0.75188 + (-0.6593)i] \\
& \quad + [0.94693 + (0.32144)i] + [-0.19497 + (0.98081)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
= \; & 0.00016364843607136192 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{210} = \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{0}{6})} + e^{2\pi i(2+1+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{5\cdot 0}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 0}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{3\cdot 0}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{14323\cdot 0}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 0}{25000})} \\
& + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 0}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{0}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{0}{6})} + e^{2\pi i(2+1+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{5\cdot 0}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 0}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{3\cdot 0}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{14323\cdot 0}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 0}{25000})} \\
& + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 0}{32})} + e^{2\pi i(\frac{76041\cdot 0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{0}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{4}{3})} + e^{2\pi i(3)} + e^{2\pi i(\frac{5}{3})}) \\
& + \; f_O(e^{2\pi i(0)} + e^{2\pi i(\frac{5}{3})} + e^{2\pi i(\frac{5}{3})} + e^{2\pi i(\frac{4}{3})} \\
& + e^{2\pi i(\frac{4}{3})} + e^{2\pi i(0)}) \\
& + \; f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{5}{3})} + e^{2\pi i(\frac{4}{3})}) \\
= \; & f_{Co}([-0.5 + (0.86603)i] + 1 + [-0.5 + (-0.86603)i]) \\
& + \; f_O(1 + [-0.5 + (-0.86603)i] + [-0.5 + (-0.86603)i] \\
& + [-0.5 + (0.86603)i] + [-0.5 + (0.86603)i] \\
& + 1) \\
& + \; f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
= \; & 0(ForbiddenReflection)
\end{aligned}
$$

$$
\begin{aligned}
F_{111} = \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{1}{6})} + e^{2\pi i(1+1+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 1}{25000})} \\
& + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{1}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{1}{6})} + e^{2\pi i(1+1+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 1}{25000})} \\
& + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{1}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{7}{6})} + e^{2\pi i(\frac{5}{2})} + e^{2\pi i(\frac{11}{6})}) \\
& + \; f_O(e^{2\pi i(\frac{23959}{100000})} + e^{2\pi i(\frac{35}{32})} + e^{2\pi i(\frac{39323}{25000})} + e^{2\pi i(\frac{35677}{25000})} \\
& + e^{2\pi i(\frac{61}{32})} + e^{2\pi i(\frac{76041}{100000})}) \\
& + \; f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{4}{3})} + e^{2\pi i(\frac{5}{3})}) \\
= \; & f_{Co}([0.5 + (0.86603)i] + -1 + [0.5 + (-0.86603)i]) \\
& + \; f_O([0.06536 + (0.99786)i] + [0.83147 + (0.55557)i] \\
& + [-0.89686 + (-0.44231)i] + [-0.89686 + (0.44231)i] \\
& + [0.83147 + (-0.55557)i] + [0.06536 + (-0.99786)i]) \\
& + \; f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
= \; & 6.506960965786679e-05 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{112} = \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{2}{6})} + e^{2\pi i(1+1+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{5\cdot 2}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{2}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{2}{6})} + e^{2\pi i(1+1+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{5\cdot 2}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{2}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{4}{3})} + e^{2\pi i(3)} + e^{2\pi i(\frac{8}{3})}) \\
& + \quad f_O(e^{2\pi i(\frac{23959}{50000})} + e^{2\pi i(\frac{19}{16})} + e^{2\pi i(\frac{26823}{12500})} + e^{2\pi i(\frac{23177}{12500})} \\
& + e^{2\pi i(\frac{45}{16})} + e^{2\pi i(\frac{76041}{50000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{5}{3})} + e^{2\pi i(\frac{7}{3})}) \\
= \; & f_{Co}([-0.5 + (0.86603)i] + 1 + [-0.5 + (-0.86603)i]) \\
& + \quad f_O([-0.99146 + (0.13044)i] + [0.38268 + (0.92388)i] \\
& \quad + [0.60873 + (0.79338)i] + [0.60873 + (-0.79338)i] \\
& \quad + [0.38268 + (-0.92388)i] + [-0.99146 + (-0.13044)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
= \; & 8.832779717460326e - 05 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{113} = \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{3}{6})} + e^{2\pi i(1+1+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{3}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{3}{6})} + e^{2\pi i(1+1+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 1}{3}+\frac{1}{3}+\frac{3}{3})} + e^{2\pi i(\frac{1}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{3}{2})} + e^{2\pi i(\frac{7}{2})} + e^{2\pi i(\frac{7}{2})}) \\
& + \quad f_O(e^{2\pi i(\frac{71877}{100000})} + e^{2\pi i(\frac{41}{32})} + e^{2\pi i(\frac{67969}{25000})} + e^{2\pi i(\frac{57031}{25000})} \\
& + e^{2\pi i(\frac{119}{32})} + e^{2\pi i(\frac{2.2812}{1})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(2)} + e^{2\pi i(3)}) \\
= \; & f_{Co}(-1 + -1 + -1) \\
& + \quad f_O([-0.19497 + (-0.98081)i] + [-0.19509 + (0.98079)i] \\
& \quad + [-0.19503 + (-0.9808)i] + [-0.19503 + (0.9808)i] \\
& \quad + [-0.19509 + (-0.98079)i] + [-0.19497 + (0.98081)i]) \\
& + \quad f_{Li}(1 + 1 + 1) \\
= \; & 3f_{Co} - 1.1701721809067727 f_O + 3f_{Li}
\end{aligned}
$$

$$
\begin{aligned}
F_{200} = \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{0}{6})} + e^{2\pi i(2+0+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{5\cdot 0}{6})}) \\
& + f_{O}(e^{2\pi i(0+0+\frac{23959\cdot 0}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3\cdot 0}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{14323\cdot 0}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 0}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 0}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{0}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{0}{6})} + e^{2\pi i(2+0+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{5\cdot 0}{6})}) \\
& + f_{O}(e^{2\pi i(\frac{23959\cdot 0}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3\cdot 0}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{14323\cdot 0}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 0}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 0}{32})} + e^{2\pi i(\frac{76041\cdot 0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{0}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3})} + e^{2\pi i(2)} + e^{2\pi i(\frac{4}{3})}) \\
& + \; f_{O}(e^{2\pi i(0)} + e^{2\pi i(\frac{4}{3})} + e^{2\pi i(\frac{4}{3})} + e^{2\pi i(\frac{2}{3})} \\
& + e^{2\pi i(\frac{2}{3})} + e^{2\pi i(0)}) \\
& + \; f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{4}{3})} + e^{2\pi i(\frac{2}{3})}) \\
= \; & f_{Co}([-0.5 + (-0.86603)i] + 1 + [-0.5 + (0.86603)i]) \\
& + \; f_{O}(1 + [-0.5 + (0.86603)i] + [-0.5 + (0.86603)i] \\
& \quad + [-0.5 + (-0.86603)i] + [-0.5 + (-0.86603)i] \\
& \quad + 1) \\
& + \; f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
= \; & 0(ForbiddenReflection)
\end{aligned}
$$

$$
\begin{aligned}
F_{201} = \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{1}{6})} + e^{2\pi i(2+0+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{1}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{1}{6})} + e^{2\pi i(2+0+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{1}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{5}{6})} + e^{2\pi i(\frac{5}{2})} + e^{2\pi i(\frac{13}{6})}) \\
& + \quad f_O(e^{2\pi i(\frac{23959}{100000})} + e^{2\pi i(\frac{137}{96})} + e^{2\pi i(\frac{1.9063}{1})} + e^{2\pi i(\frac{82031}{75000})} \\
& + e^{2\pi i(\frac{151}{96})} + e^{2\pi i(\frac{76041}{100000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{5}{3})} + e^{2\pi i(\frac{4}{3})}) \\
= \; & f_{Co}([0.5 + (-0.86603)i] + -1 + [0.5 + (0.86603)i]) \\
& + \quad f_O([0.06536 + (0.99786)i] + [-0.89687 + (0.44229)i] \\
& \quad + [0.83148 + (-0.55555)i] + [0.83148 + (0.55555)i] \\
& \quad + [-0.89687 + (-0.44229)i] + [0.06536 + (-0.99786)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
= \; & 6.0325241624095693e-05 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{202} = \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2}{6})} + e^{2\pi i(2+0+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{5\cdot 2}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{2}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2}{6})} + e^{2\pi i(2+0+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{5\cdot 2}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{2}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(1)} + e^{2\pi i(3)} + e^{2\pi i(3)}) \\
& + \quad f_O(e^{2\pi i(\frac{23959}{50000})} + e^{2\pi i(\frac{73}{48})} + e^{2\pi i(\frac{92969}{37500})} + e^{2\pi i(\frac{57031}{37500})} \\
& + e^{2\pi i(\frac{119}{48})} + e^{2\pi i(\frac{76041}{50000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(2)} + e^{2\pi i(2)}) \\
= \; & f_{Co}(1+1+1) \\
& + \quad f_O([-0.99146 + (0.13044)i] + [-0.99144 + (-0.13053)i] \\
& \quad + [-0.99145 + (0.13048)i] + [-0.99145 + (-0.13048)i] \\
& \quad + [-0.99144 + (0.13053)i] + [-0.99146 + (-0.13044)i]) \\
& + \quad f_{Li}(1+1+1) \\
= \; & 3f_{Co} - 5.948701964355033 f_O + 3f_{Li}
\end{aligned}
$$

$$
\begin{aligned}
F_{203} = \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{3}{6})} + e^{2\pi i(2+0+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{3}{6})} + e^{2\pi i(2+0+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{0}{3}+\frac{3}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{7}{6})} + e^{2\pi i(\frac{7}{2})} + e^{2\pi i(\frac{23}{6})}) \\
& + \; f_O(e^{2\pi i(\frac{71877}{100000})} + e^{2\pi i(\frac{155}{96})} + e^{2\pi i(\frac{3.0521}{1})} + e^{2\pi i(\frac{1.9479}{1})} \\
& + e^{2\pi i(\frac{325}{96})} + e^{2\pi i(\frac{2.2812}{1})}) \\
& + \; f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{7}{3})} + e^{2\pi i(\frac{8}{3})}) \\
= \; & f_{Co}([0.5 + (0.86603)i] + -1 + [0.5 + (-0.86603)i]) \\
& + \; f_O([-0.19497 + (-0.98081)i] + [-0.75184 + (-0.65935)i] \\
& \quad + [0.94691 + (0.3215)i] + [0.94691 + (-0.3215)i] \\
& \quad + [-0.75184 + (0.65935)i] + [-0.19497 + (0.98081)i]) \\
& + \; f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
= \; & 0.00020610429381390238 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{210} = \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{0}{6})} + e^{2\pi i(2+1+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{5\cdot0}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot0}{100000})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{3\cdot0}{32})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{14323\cdot0}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{10677\cdot0}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{29\cdot0}{32})} + e^{2\pi i(0+0+\frac{76041\cdot0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{0}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{2\cdot0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{0}{6})} + e^{2\pi i(2+1+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{5\cdot0}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot0}{100000})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{3\cdot0}{32})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{14323\cdot0}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{10677\cdot0}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{29\cdot0}{32})} + e^{2\pi i(\frac{76041\cdot0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{0}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{2\cdot0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{4}{3})} + e^{2\pi i(3)} + e^{2\pi i(\frac{5}{3})}) \\
& + \quad f_O(e^{2\pi i(0)} + e^{2\pi i(\frac{5}{3})} + e^{2\pi i(\frac{5}{3})} + e^{2\pi i(\frac{4}{3})} \\
& + e^{2\pi i(\frac{4}{3})} + e^{2\pi i(0)}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{5}{3})} + e^{2\pi i(\frac{4}{3})}) \\
= \; & f_{Co}([-0.5 + (0.86603)i] + 1 + [-0.5 + (-0.86603)i]) \\
& + \quad f_O(1 + [-0.5 + (-0.86603)i] + [-0.5 + (-0.86603)i] \\
& \quad + [-0.5 + (0.86603)i] + [-0.5 + (0.86603)i] \\
& \quad + 1) \\
& + \quad f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
= \; & 0(ForbiddenReflection)
\end{aligned}
$$

$$
\begin{aligned}
F_{211} = \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{1}{6})} + e^{2\pi i(2+1+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{1}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{1}{6})} + e^{2\pi i(2+1+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{1}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{3}{2})} + e^{2\pi i(\frac{7}{2})} + e^{2\pi i(\frac{5}{2})}) \\
& + \quad f_O(e^{2\pi i(\frac{23959}{100000})} + e^{2\pi i(\frac{169}{96})} + e^{2\pi i(\frac{2.2396}{1})} + e^{2\pi i(\frac{1.7604}{1})} \\
& + e^{2\pi i(\frac{215}{96})} + e^{2\pi i(\frac{76041}{100000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2}{1})} + e^{2\pi i(2)}) \\
= \; & f_{Co}(-1 + -1 + -1) \\
& + \quad f_O([0.06536 + (0.99786)i] + [0.0654 + (-0.99786)i] \\
& \quad + [0.06538 + (0.99786)i] + [0.06538 + (-0.99786)i] \\
& \quad + [0.0654 + (0.99786)i] + [0.06536 + (-0.99786)i]) \\
& + \quad f_{Li}(1 + 1 + 1) \\
= \; & 3f_{Co} + 0.39229338058693924 f_O + 3f_{Li}
\end{aligned}
$$

$$
\begin{aligned}
F_{212} = \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{2}{6})} + e^{2\pi i(2+1+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{5\cdot2}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot2}{100000})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{3\cdot2}{32})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{14323\cdot2}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{10677\cdot2}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{29\cdot2}{32})} + e^{2\pi i(0+0+\frac{76041\cdot2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{2}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{2\cdot2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{2}{6})} + e^{2\pi i(2+1+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{5\cdot2}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot2}{100000})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{3\cdot2}{32})} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{14323\cdot2}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{10677\cdot2}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{29\cdot2}{32})} + e^{2\pi i(\frac{76041\cdot2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot2}{3}+\frac{1}{3}+\frac{2}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot1}{3}+\frac{2\cdot2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{5}{3})} + e^{2\pi i(4)} + e^{2\pi i(\frac{10}{3})}) \\
& + \quad f_O(e^{2\pi i(\frac{23959}{50000})} + e^{2\pi i(\frac{89}{48})} + e^{2\pi i(\frac{2.8125}{1})} + e^{2\pi i(\frac{82031}{37500})} \\
& + e^{2\pi i(\frac{151}{48})} + e^{2\pi i(\frac{76041}{50000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{7}{3})} + e^{2\pi i(\frac{8}{3})}) \\
= \; & f_{Co}([-0.5 + (-0.86603)i] + 1 + [-0.5 + (0.86603)i]) \\
& + \quad f_O([-0.99146 + (0.13044)i] + [0.60876 + (-0.79335)i] \\
& \quad + [0.38272 + (-0.92386)i] + [0.38272 + (0.92386)i] \\
& \quad + [0.60876 + (0.79335)i] + [-0.99146 + (-0.13044)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
= \; & 5.5535164196429676e-05 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{213} = \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{3}{6})} + e^{2\pi i(2+1+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{3}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{3}{6})} + e^{2\pi i(2+1+\frac{3}{2})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{5\cdot 3}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 3}{100000})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{3\cdot 3}{32})} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{14323\cdot 3}{25000})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{10677\cdot 3}{25000})} \\
& \quad + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{29\cdot 3}{32})} + e^{2\pi i(\frac{76041\cdot 3}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 2}{3}+\frac{1}{3}+\frac{3}{3})} + e^{2\pi i(\frac{2}{3}+\frac{2\cdot 1}{3}+\frac{2\cdot 3}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{11}{6})} + e^{2\pi i(\frac{9}{2})} + e^{2\pi i(\frac{25}{6})}) \\
& + \quad f_O(e^{2\pi i(\frac{71877}{100000})} + e^{2\pi i(\frac{187}{96})} + e^{2\pi i(\frac{3.3854}{1})} + e^{2\pi i(\frac{2.6146}{1})} \\
& + e^{2\pi i(\frac{389}{96})} + e^{2\pi i(\frac{2.2812}{1})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{8}{3})} + e^{2\pi i(\frac{10}{3})}) \\
= \; & f_{Co}([0.5 + (-0.86603)i] + -1 + [0.5 + (0.86603)i]) \\
& + \quad f_O([-0.19497 + (-0.98081)i] + [0.94693 + (-0.32144)i] \\
& \quad + [-0.75188 + (0.6593)i] + [-0.75188 + (-0.6593)i] \\
& \quad + [0.94693 + (0.32144)i] + [-0.19497 + (0.98081)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
= \; & 0.000163648436071361 92 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{300} = \; & f_{Co}(e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{0}{6})} + e^{2\pi i(3+0+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{5\cdot 0}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 0}{100000})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{3\cdot 0}{32})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{14323\cdot 0}{25000})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 0}{25000})} \\
& \quad + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 0}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{0}{3})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{0}{6})} + e^{2\pi i(3+0+\frac{0}{2})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{5\cdot 0}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 0}{100000})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{3\cdot 0}{32})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{14323\cdot 0}{25000})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 0}{25000})} \\
& \quad + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 0}{32})} + e^{2\pi i(\frac{76041\cdot 0}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{0}{3})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 0}{3})}) \\
= \; & f_{Co}(e^{2\pi i(1)} + e^{2\pi i(3)} + e^{2\pi i(2)}) \\
& + \quad f_O(e^{2\pi i(0)} + e^{2\pi i(2)} + e^{2\pi i(2)} + e^{2\pi i(1)} \\
& + e^{2\pi i(1)} + e^{2\pi i(0)}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(2)} + e^{2\pi i(1)}) \\
= \; & f_{Co}(1+1+1) \\
& + \quad f_O(1+1+1+1+1+1) \\
& + \quad f_{Li}(1+1+1) \\
= \; & 3f_{Co} + 6f_O + 3f_{Li}
\end{aligned}
$$

$$
\begin{aligned}
F_{301} = \; & f_{Co}(e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{1}{6})} + e^{2\pi i(3+0+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(0+0+\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{1}{3})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{1}{6})} + e^{2\pi i(3+0+\frac{1}{2})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{5\cdot 1}{6})}) \\
& + f_O(e^{2\pi i(\frac{23959\cdot 1}{100000})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{3\cdot 1}{32})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{14323\cdot 1}{25000})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 1}{25000})} \\
& \quad + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 1}{32})} + e^{2\pi i(\frac{76041\cdot 1}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{1}{3})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 1}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{7}{6})} + e^{2\pi i(\frac{7}{2})} + e^{2\pi i(\frac{17}{6})}) \\
& + \quad f_O(e^{2\pi i(\frac{23959}{100000})} + e^{2\pi i(\frac{67}{32})} + e^{2\pi i(\frac{64323}{25000})} + e^{2\pi i(\frac{35677}{25000})} \\
& + e^{2\pi i(\frac{61}{32})} + e^{2\pi i(\frac{76041}{100000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{7}{3})} + e^{2\pi i(\frac{5}{3})}) \\
= \; & f_{Co}([0.5 + (0.86603)i] + -1 + [0.5 + (-0.86603)i]) \\
& + \quad f_O([0.06536 + (0.99786)i] + [0.83147 + (0.55557)i] \\
& \quad + [-0.89686 + (-0.44231)i] + [-0.89686 + (0.44231)i] \\
& \quad + [0.83147 + (-0.55557)i] + [0.06536 + (-0.99786)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (0.86603)i] + [-0.5 + (-0.86603)i]) \\
= \; & 6.506960965775577e-05 f_O
\end{aligned}
$$

$$
\begin{aligned}
F_{302} = \; & f_{Co}(e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{2}{6})} + e^{2\pi i(3+0+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{5\cdot 2}{6})}) \\
& + f_{O}(e^{2\pi i(0+0+\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(0+0+\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0+0+0)} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{2}{3})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{2}{6})} + e^{2\pi i(3+0+\frac{2}{2})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{5\cdot 2}{6})}) \\
& + f_{O}(e^{2\pi i(\frac{23959\cdot 2}{100000})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{3\cdot 2}{32})} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{14323\cdot 2}{25000})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{10677\cdot 2}{25000})} \\
& \quad + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{29\cdot 2}{32})} + e^{2\pi i(\frac{76041\cdot 2}{100000})}) \\
& + f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{2\cdot 3}{3}+\frac{0}{3}+\frac{2}{3})} + e^{2\pi i(\frac{3}{3}+\frac{2\cdot 0}{3}+\frac{2\cdot 2}{3})}) \\
= \; & f_{Co}(e^{2\pi i(\frac{4}{3})} + e^{2\pi i(4)} + e^{2\pi i(\frac{11}{3})}) \\
& + \quad f_{O}(e^{2\pi i(\frac{23959}{50000})} + e^{2\pi i(\frac{35}{16})} + e^{2\pi i(\frac{39323}{12500})} + e^{2\pi i(\frac{23177}{12500})} \\
& + e^{2\pi i(\frac{45}{16})} + e^{2\pi i(\frac{76041}{50000})}) \\
& + \quad f_{Li}(e^{2\pi i(0)} + e^{2\pi i(\frac{8}{3})} + e^{2\pi i(\frac{7}{3})}) \\
= \; & f_{Co}([-0.5 + (0.86603)i] + 1 + [-0.5 + (-0.86603)i]) \\
& + \quad f_{O}([-0.99146 + (0.13044)i] + [0.38268 + (0.92388)i] \\
& \quad + [0.60873 + (0.79338)i] + [0.60873 + (-0.79338)i] \\
& \quad + [0.38268 + (-0.92388)i] + [-0.99146 + (-0.13044)i]) \\
& + \quad f_{Li}(1 + [-0.5 + (-0.86603)i] + [-0.5 + (0.86603)i]) \\
= \; & 8.83277971728269e-05 f_{O}
\end{aligned}
$$