(DEF1)

$$F(q)=\frac{(1-q)(1-q^2)(1-q^3)\cdots}{(1-2q\cos\frac{2n\pi}{5}+q^2)(1-2q^2\cos\frac{2n\pi}{5}+q^4)\cdots},$$

(DEF2)

$$f(q)=1+\frac{q}{(1-2q\cos\frac{2n\pi}{5}+q^2)}$$
$$+\frac{q^4}{(1-2q\cos\frac{2n\pi}{5}+q^2)(1-2q^2\cos\frac{2n\pi}{5}+q^4)}+\cdots,\ n=1 \text{ or } 2,$$

(R1)

$$F(q^{\frac{1}{5}})=A(q)-4q^{\frac{1}{5}}\cos^2\frac{2n\pi}{5}B(q)+2q^{\frac{2}{5}}\cos\frac{4n\pi}{5}C(q)$$
$$-2q^{\frac{3}{5}}\cos\frac{2n\pi}{5}D(q),$$

(R2)

$$f(q^{\frac{1}{5}})=\left\{A(q)-4\sin^2\frac{n\pi}{5}\phi(q)\right\}+q^{\frac{1}{5}}B(q)+2q^{\frac{2}{5}}\cos\frac{2n\pi}{5}C(q)$$
$$-2q^{\frac{3}{5}}\cos\frac{2n\pi}{5}\left\{D(q)+4\sin^2\frac{2n\pi}{5}\frac{\psi(q)}{q}\right\},$$

(DEF3) $$A(q)=\frac{1-q^2-q^3+q^9+\cdots}{(1-q)^2(1-q^4)^2(1-q^6)^2\cdots},$$

(DEF4) $$B(q)=\frac{(1-q^5)(1-q^{10})(1-q^{15})\cdots}{(1-q)(1-q^4)(1-q^6)\cdots},$$

(DEF5) $$C(q)=\frac{(1-q^5)(1-q^{10})(1-q^{15})\cdots}{(1-q^2)(1-q^3)(1-q^7)\cdots},$$

(DEF6) $$D(q)=\frac{1-q-q^4+q^7+\cdots}{(1-q^2)^2(1-q^3)^2(1-q^7)^2\cdots},$$