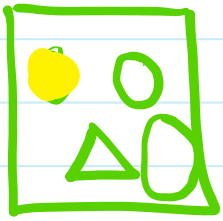
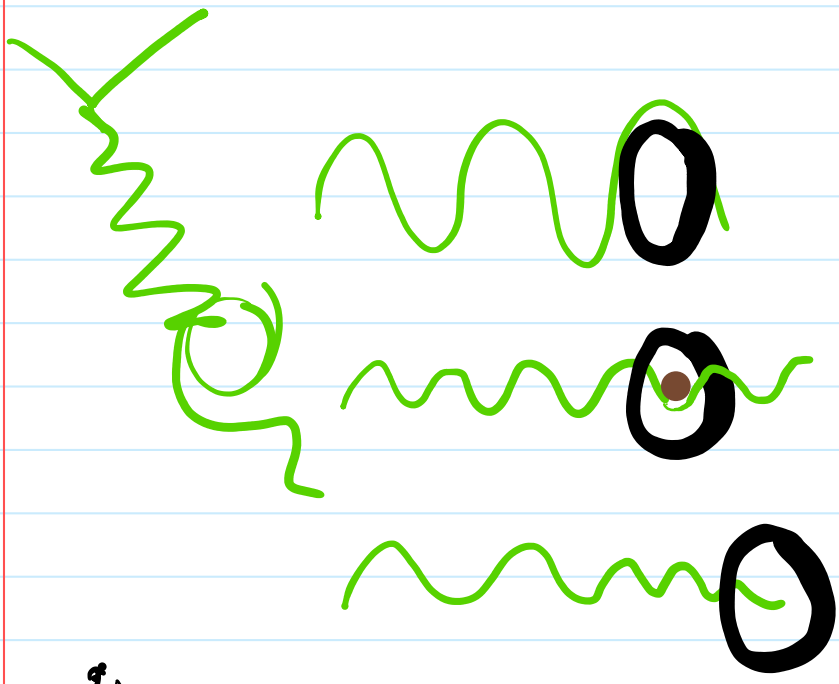


شکل
اندازه
و رنگ



$$q^2=(p_i-p_f)^2 \Big\} \rightarrow q^2=4p^2\sin^2\frac{\theta}{2}$$
$$|p_i|=|p_f|=p$$

$$\nabla^2\phi(m)=-ze\rho(m)$$

$$T_{fi}=-i\int \psi_f^{+} V(m)\,\psi_i\, d^4m$$

$$p^\mu \rightarrow p^\mu + eA^\mu$$

$p^\mu \to p^\mu + eA^\mu$

$(\gamma_\mu p^\mu - m)\psi = -e\gamma_\mu A^\mu \psi$ → $\gamma^0 V$

$(E + \dots)\psi = V\psi$

$\psi^\dagger = \bar{\psi}\gamma^0$

$T_{fi} = ie\int \bar{\psi}_f \gamma_\mu A^\mu \psi_i \, d^4x$

$= -i\int \eta_\mu^{fi} A^\mu \, d^4x$

$A(q) = \int d^4x \, e^{-iq\cdot x} A(x)$

$= \int dt \, e^{i(E_i - E_f)t} \int d^3x (\dots)$

$2\pi\delta(E_i - E_f)$

$d\sigma = \frac{|T_{fi}|^2}{T} \frac{d^3p}{(2\pi)^3 2E} \left(\frac{1}{V 2E}\right)$

$d\sigma/d\Omega = (d\sigma/d\Omega)_{Mott} |F(q)|^2$

$\frac{1}{2}\sum_s \bar{u}\gamma^\mu u$