

embedding 1 [-1, -3, -1, -2]

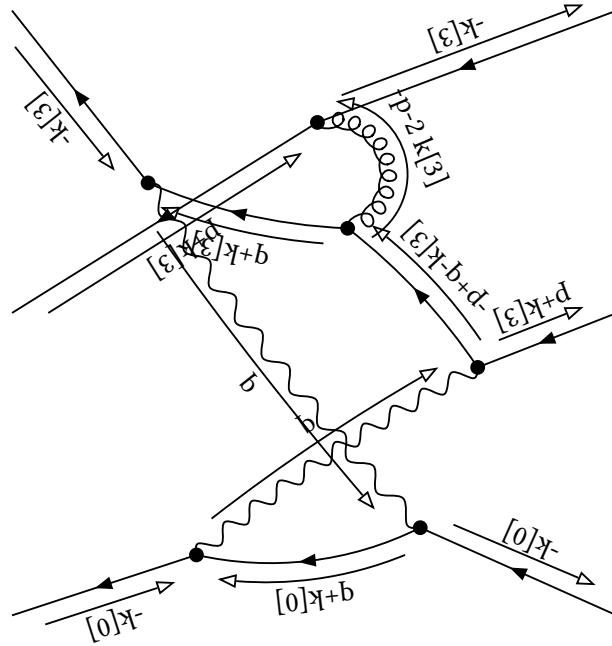
initial

Denominator:

$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-k[3]]^{-1} \text{prop}[0, -p-2 k[3]]^{-1} \text{prop}[0, -p+q-k[3]]^{-1}$$

Partial Fractioned Denominator:

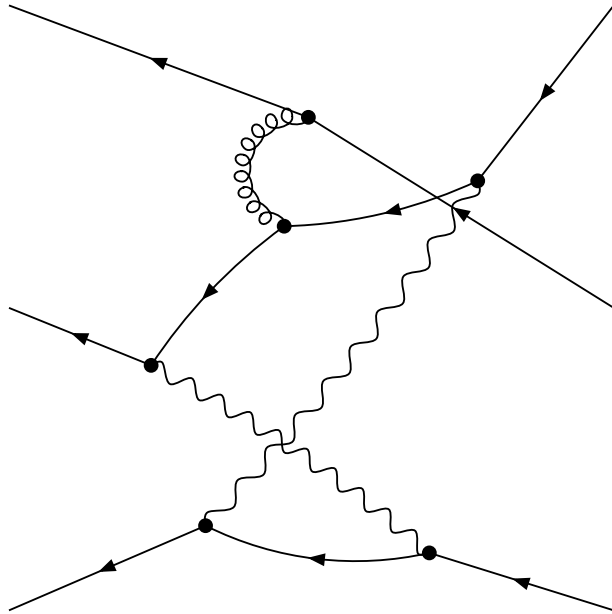
$$\begin{aligned} & -(-2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +(-2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -(-2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -p-k[3]]^{-1} \text{prop}[0, -p+q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +(-2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-k[3]]^{-1} \text{prop}[0, -p+q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -(1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -p-2 k[3]]^{-1} \text{prop}[0, -p+q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-k[3]]^{-1} \text{prop}[0, -p-2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -(1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-k[3]]^{-1} \text{prop}[0, -p+q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, -p-k[3]]^{-1} \text{prop}[0, -p-2 k[3]]^{-1} \text{prop}[0, -p+q-k[3]]^{-1} \text{dot}[p, p]^{-1} \end{aligned}$$



final

Denominator:

$\text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p-q-k[3]]^{-1} \text{prop}[0,-p-2\ q-k[3]]^{-1} \text{prop}[0,-p-2\ q-2\ k[3]]^{-1}$



-1-15-17

embedding 2 $[-1, -2, -2, -1]$

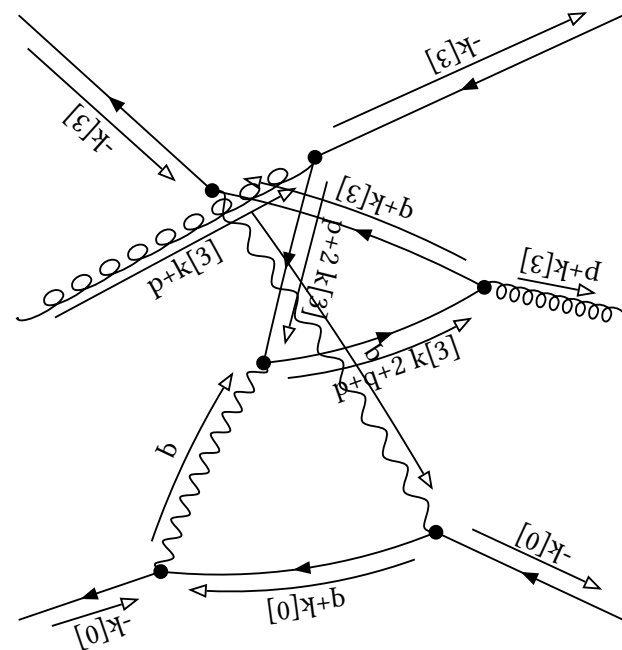
initial

Denominator:

$$\text{prop}[0,k[3]]^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+2 \ k[3]]^{-1} \text{prop}[0,p+q+2 \ k[3]]^{-1}$$

Partial Fractioned Denominator:

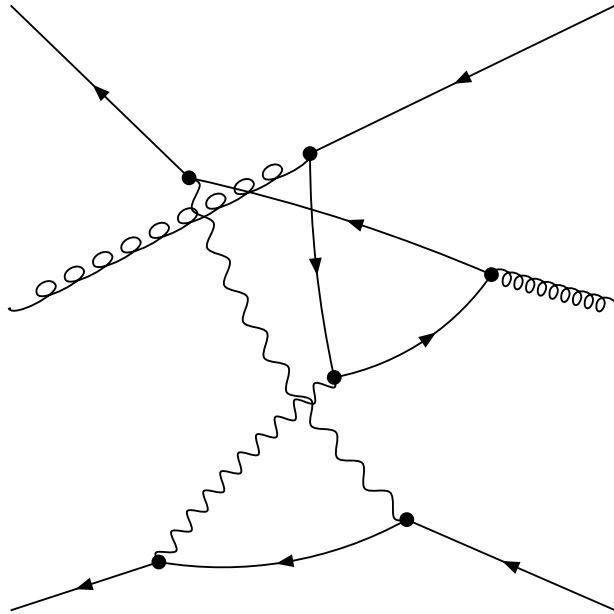
$$\begin{aligned} & -(-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+2 \ k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \\ & +(-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q+2 \ k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \\ & +2 \ (-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,p+2 \ k[3]]^{-1} \text{prop}[0,p+q+2 \ k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \\ & -2 \ (-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+2 \ k[3]]^{-1} \text{prop}[0,p+q+2 \ k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \\ & +1/2 \ (1/2 \dot{\text{dot}}[p,p]-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \\ & -(1/2 \dot{\text{dot}}[p,p]-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,p+q+2 \ k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \\ & -(1/2 \dot{\text{dot}}[p,p]-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q+2 \ k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \\ & -(1/2 \dot{\text{dot}}[p,p]-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+2 \ k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \\ & +2 \ (1/2 \dot{\text{dot}}[p,p]-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,p+2 \ k[3]]^{-1} \text{prop}[0,p+q+2 \ k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \\ & +2 \ (1/2 \dot{\text{dot}}[p,p]-\dot{\text{dot}}[p,q]+1/2 \dot{\text{dot}}[q,q])^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+2 \ k[3]]^{-1} \text{prop}[0,p+q+2 \ k[3]]^{-1} \dot{\text{dot}}[p,p]^{-1} \end{aligned}$$



final

Denominator:

$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -1/2 \ p+1/2 \ q+1/2 \ k[3]]^{-1} \text{prop}[0, -1/2 \ p-1/2 \ q+1/2 \ k[3]]^{-1} \text{prop}[0, -1/2 \ p-1/2 \ q-1/2 \ k[3]]^{-1}$



-1-9-15

embedding 3 [-1, -2, -1, -2]

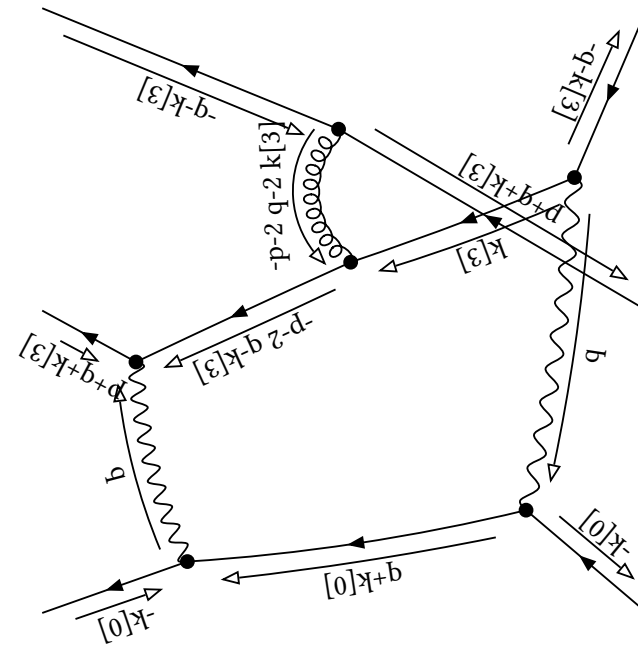
initial

Denominator:

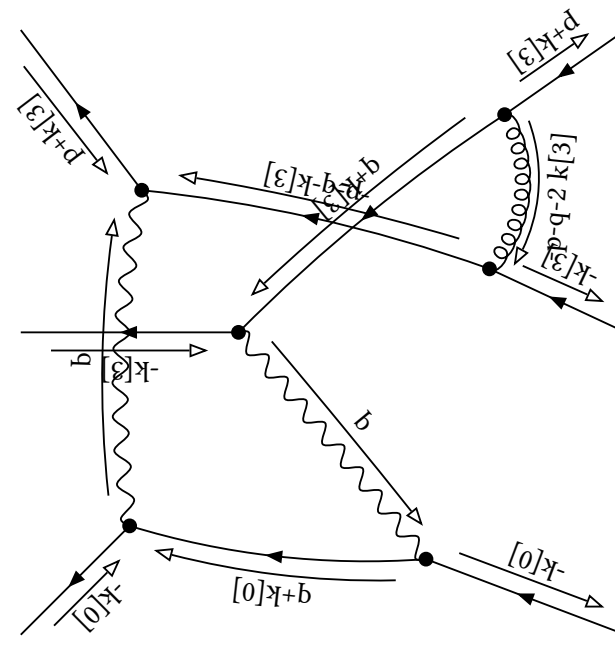
$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-q-k[3]]^{-1} \text{prop}[0, -p-2q-k[3]]^{-1} \text{prop}[0, -p-2q-2k[3]]^{-1}$$

Partial Fractioned Denominator:

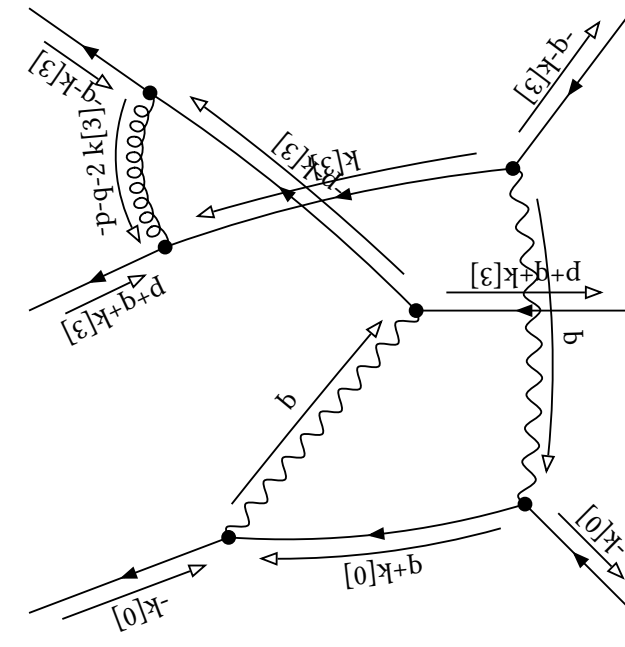
$$\begin{aligned} & 1/2 (-2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-q-k[3]]^{-1} \\ & - 1/2 (-2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-2q-k[3]]^{-1} \\ & - 1/2 (-2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -p-q-k[3]]^{-1} \text{prop}[0, -p-2q-k[3]]^{-1} \\ & + 1/2 (-2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-q-k[3]]^{-1} \text{prop}[0, -p-2q-k[3]]^{-1} \\ & - (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-2q-2k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -p-q-k[3]]^{-1} \text{prop}[0, -p-2q-2k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-q-k[3]]^{-1} \text{prop}[0, -p-2q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-2q-k[3]]^{-1} \text{prop}[0, -p-2q-2k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] + 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, -p-q-k[3]]^{-1} \text{prop}[0, -p-2q-k[3]]^{-1} \text{prop}[0, -p-2q-2k[3]]^{-1} \text{dot}[p, p]^{-1} \end{aligned}$$



-3-15-17



-3-13-15

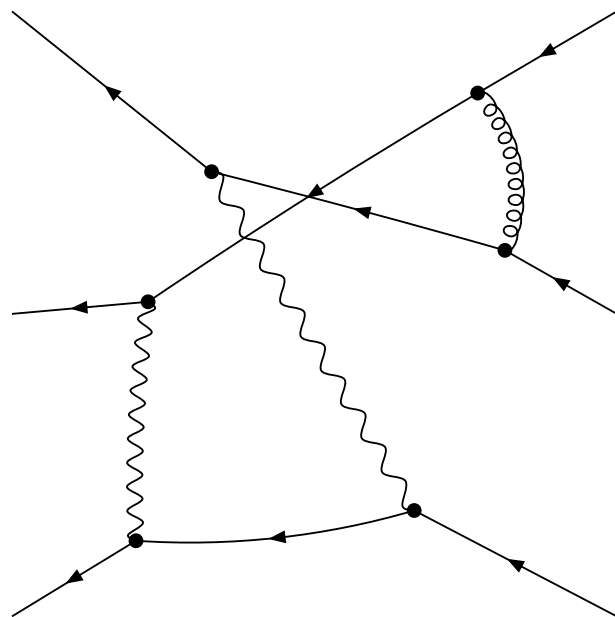


-3-11-17

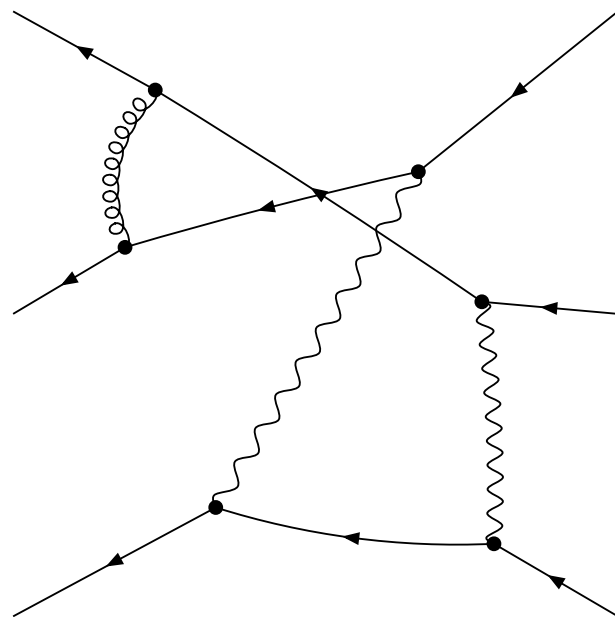
final

Denominator:

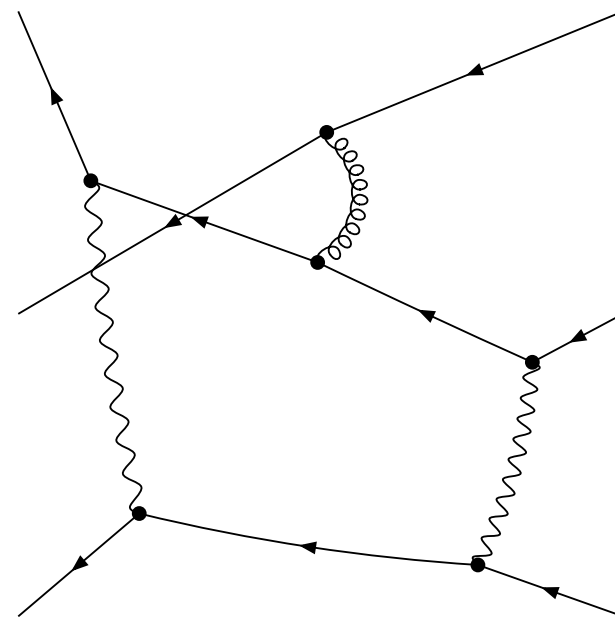
$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p-k[3]]^{-1} \text{prop}[0, -p-q-k[3]]^{-1} \text{prop}[0, -p-q-2 k[3]]^{-1}$



-1-13-15



-1-11-17



-1-11-13

embedding 4 [-1, -2, -1, -1]

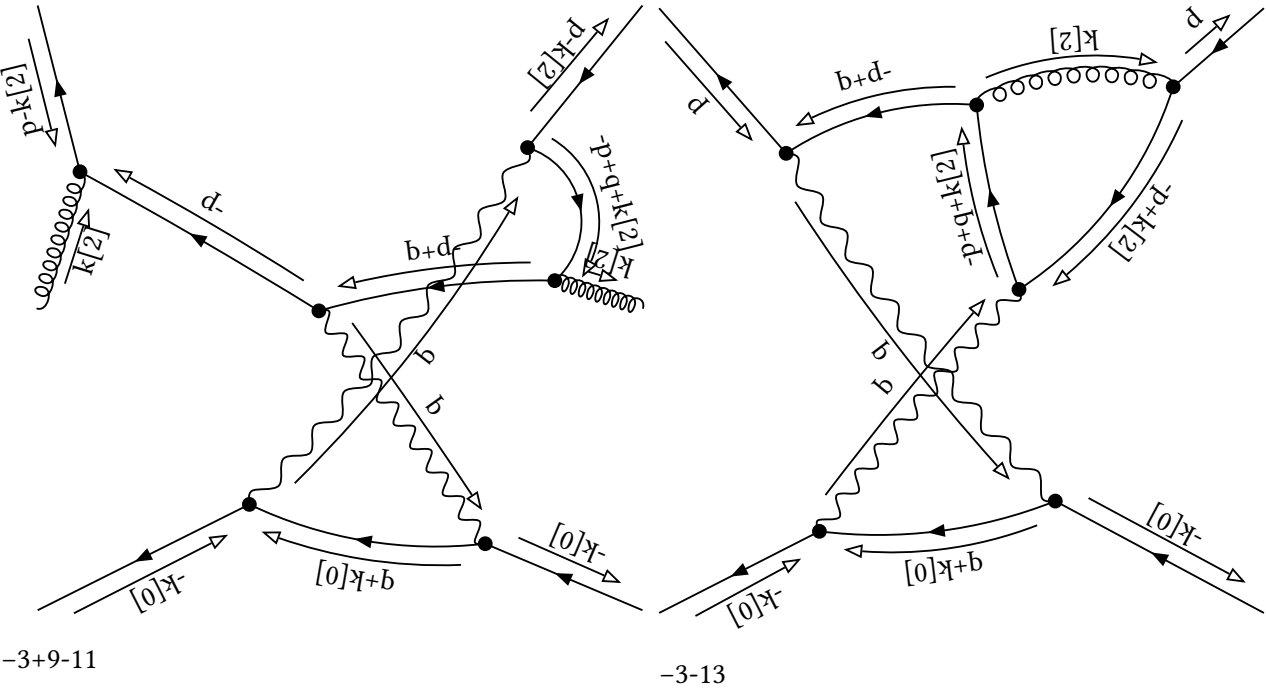
initial

Denominator:

$\text{prop}[0,k[2]]^{-1} \text{prop}[0,-p]^{-1} \text{prop}[0,-p+q]^{-1} \text{prop}[0,-p+k[2]]^{-1} \text{prop}[0,-p+q+k[2]]^{-1}$

Partial Fractioned Denominator:

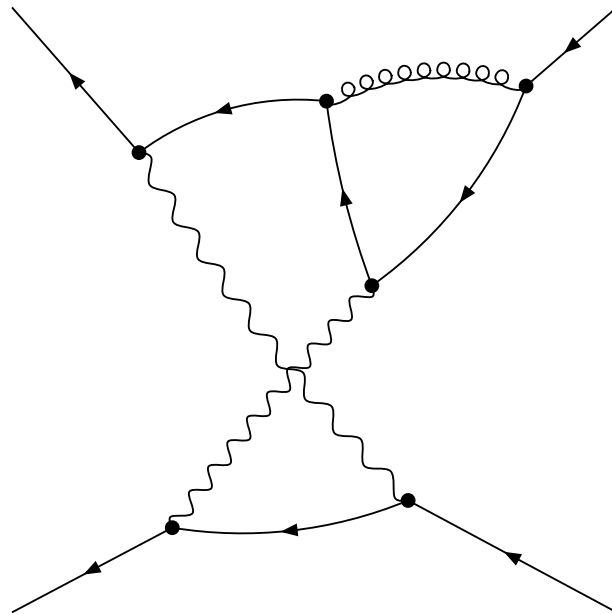
$(\text{dot}[p,p]-2 \text{dot}[p,q]+\text{dot}[q,q])^{-1} \text{prop}[0,k[2]]^{-1} \text{prop}[0,-p+k[2]]^{-1} \text{prop}[0,-p+q+k[2]]^{-1} \text{dot}[p,p]^{-1}$



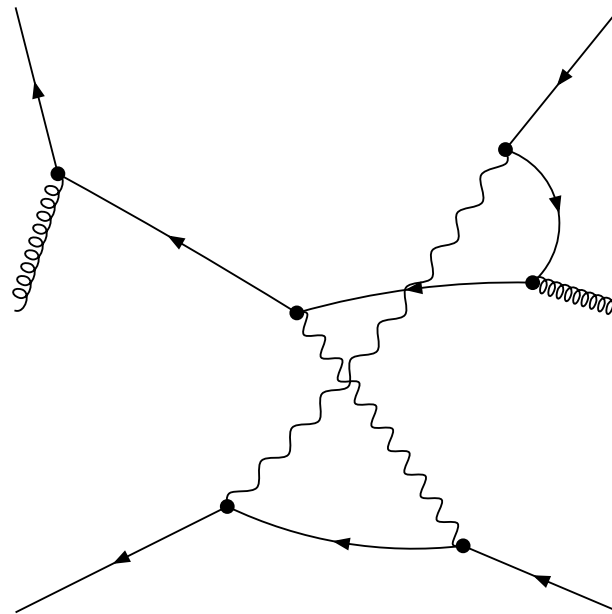
final

Denominator:

$\text{prop}[0,k[3]]^{-1} \text{prop}[0,-p]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p-q]^{-1} \text{prop}[0,-p-q-k[3]]^{-1}$



-1-15



-1-9-17

embedding 5 $[-1, -2, -1, 0]$

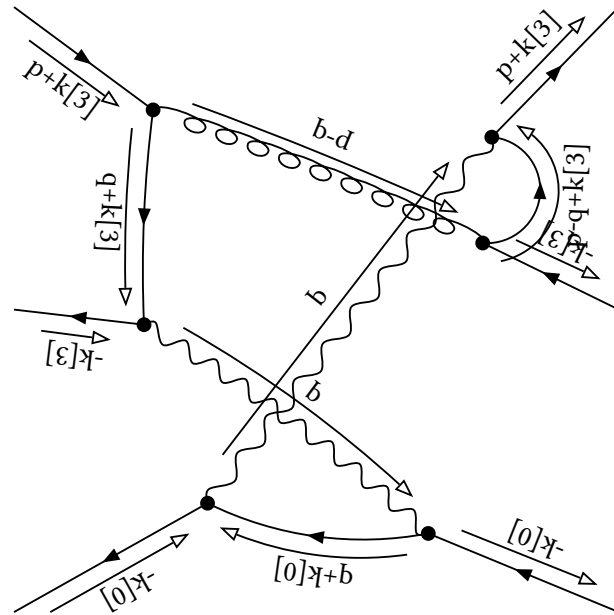
initial

Denominator:

$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, p+k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-q]^{-1} \text{prop}[0, p-q+k[3]]^{-1}$$

Partial Fractioned Denominator:

$$\begin{aligned} & (-2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} (\text{dot}[p, p] - 2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, p+k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \\ & + (-2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} (\text{dot}[p, p] - 2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, p+k[3]]^{-1} \text{prop}[0, p-q+k[3]]^{-1} \\ & - (-2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} (\text{dot}[p, p] - 2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-q+k[3]]^{-1} \\ & - (-2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} (\text{dot}[p, p] - 2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} \text{prop}[0, p+k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-q+k[3]]^{-1} \end{aligned}$$

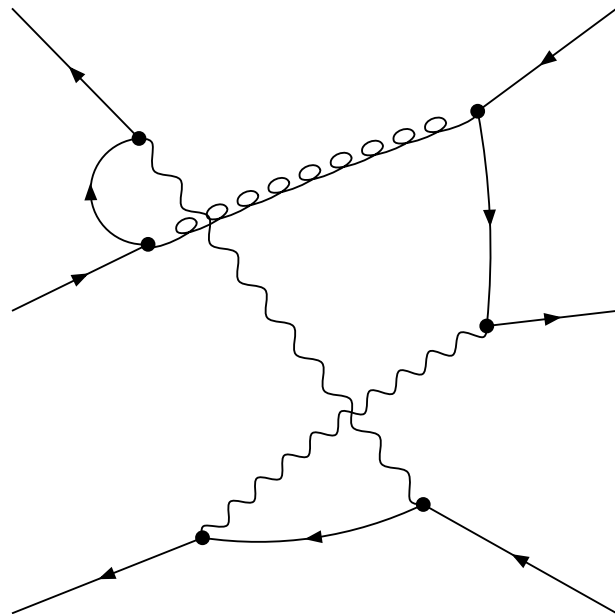


-3-13+15

final

Denominator:

$\text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p+k[3]]^{-1} \text{prop}[0,-p-q]^{-1} \text{prop}[0,-p-q+k[3]]^{-1}$



-1+13-15

embedding 6 [-1, -2, 0, -1]

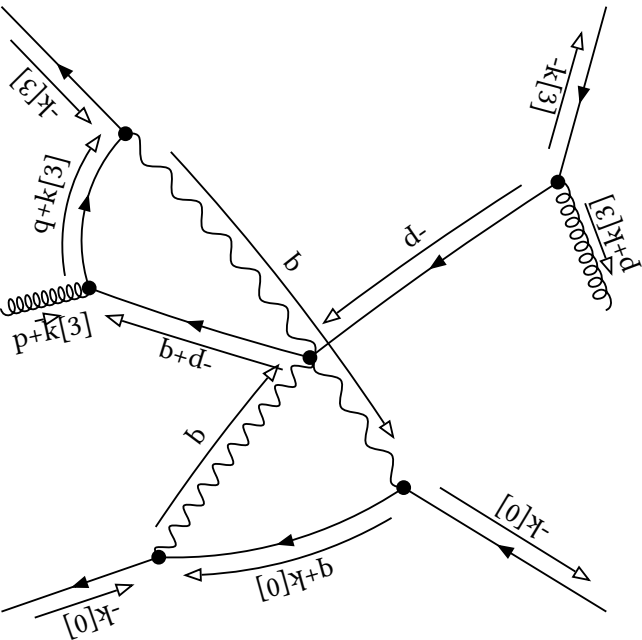
initial

Denominator:

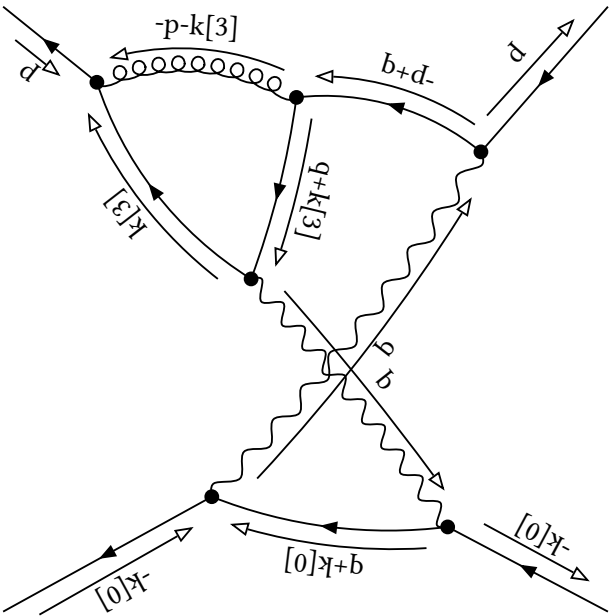
$\text{prop}[0,k[3]]^{-1} \text{prop}[0,-p]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p+q]^{-1} \text{prop}[0,-p-k[3]]^{-1}$

Partial Fractioned Denominator:

$(\text{dot}[p,p]-2 \text{dot}[p,q]+\text{dot}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p-k[3]]^{-1} \text{dot}[p,p]^{-1}$



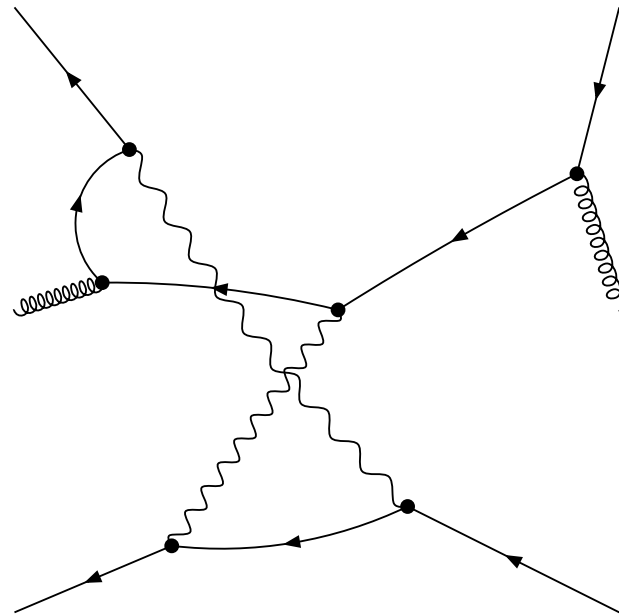
-3-9-13



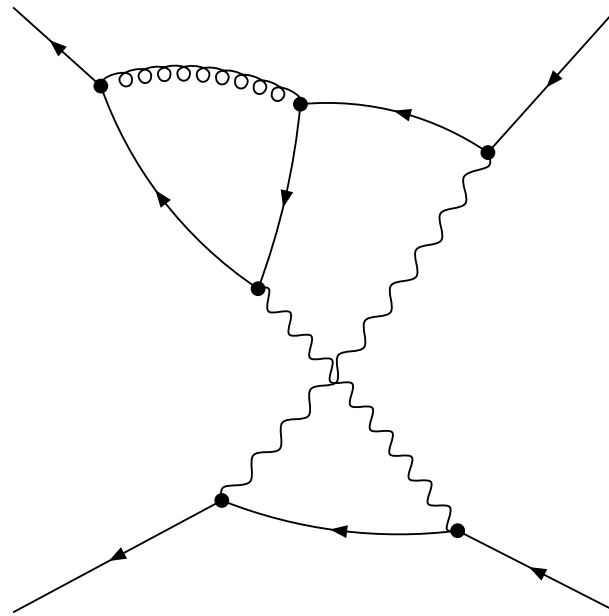
-3-11

final

Denominator:

$$\text{prop}[0, k[2]]^{-1} \text{prop}[0, -p]^{-1} \text{prop}[0, -p+k[2]]^{-1} \text{prop}[0, -p-q]^{-1} \text{prop}[0, -p-q+k[2]]^{-1}$$


-1+9-15



-1-17

embedding 7 [-1, -2, 1, -1]

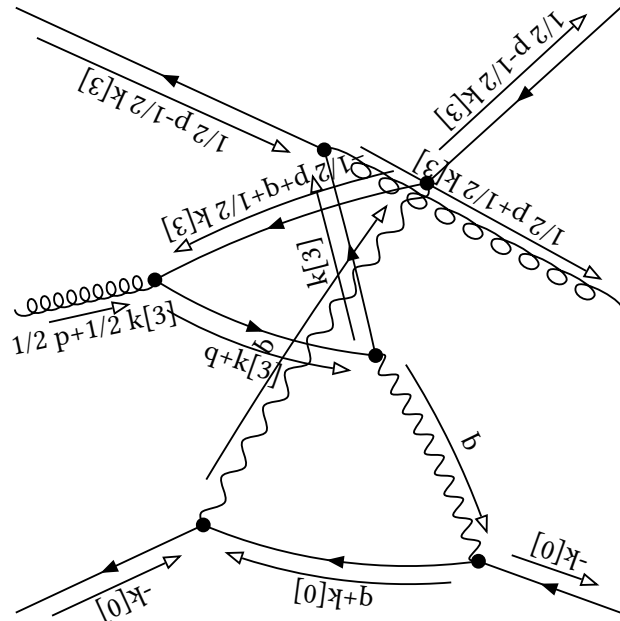
initial

Denominator:

$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -1/2 p+1/2 k[3]]^{-1} \text{prop}[0, -1/2 p-1/2 k[3]]^{-1} \text{prop}[0, -1/2 p+q+1/2 k[3]]^{-1}$$

Partial Fractioned Denominator:

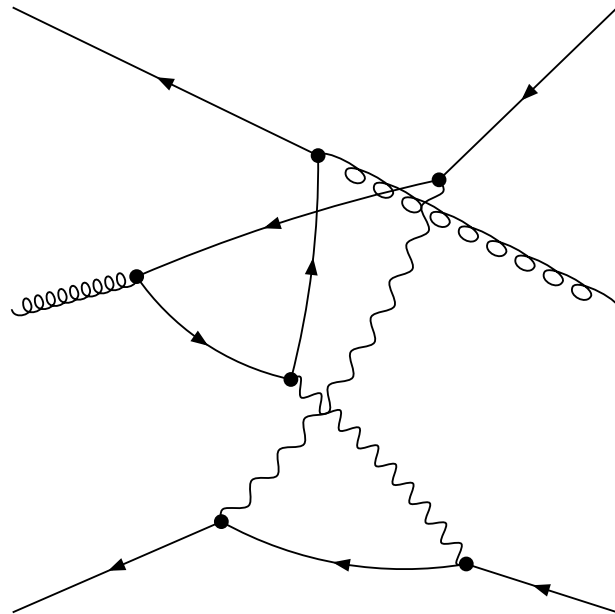
$$\begin{aligned} & -4 (2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -1/2 p+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +4 (2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -1/2 p+q+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -1/2 p+1/2 k[3]]^{-1} \text{prop}[0, -1/2 p+q+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -2 (2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -1/2 p+1/2 k[3]]^{-1} \text{prop}[0, -1/2 p+q+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -4 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -1/2 p-1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -4 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -1/2 p+q+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -1/2 p-1/2 k[3]]^{-1} \text{prop}[0, -1/2 p+q+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -1/2 p+1/2 k[3]]^{-1} \text{prop}[0, -1/2 p-1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -1/2 p+1/2 k[3]]^{-1} \text{prop}[0, -1/2 p+q+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -(-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, -1/2 p+1/2 k[3]]^{-1} \text{prop}[0, -1/2 p-1/2 k[3]]^{-1} \text{prop}[0, -1/2 p+q+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \end{aligned}$$



final

Denominator:

$\text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q+k[3]]^{-1} \text{prop}[0,p+q+2 \ k[3]]^{-1} \text{prop}[0,p+2 \ q+2 \ k[3]]^{-1}$



-1+9-17

embedding 8 [-1, -2, 1, 0]

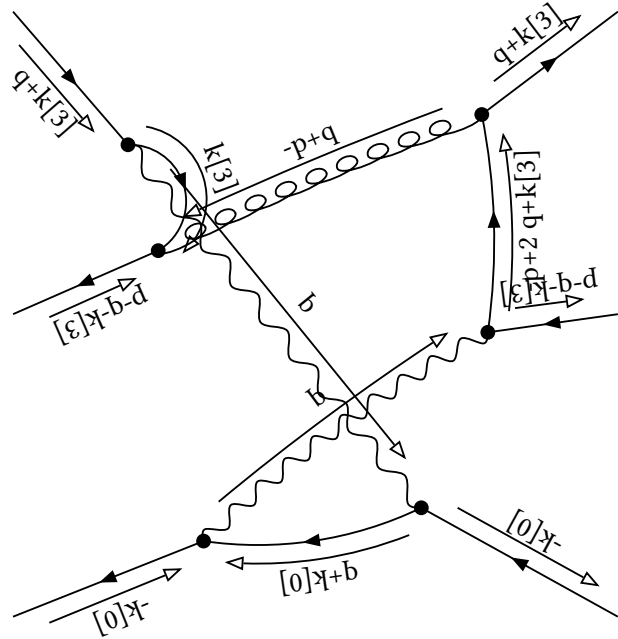
initial

Denominator:

$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q]^{-1} \text{prop}[0, -p+q+k[3]]^{-1} \text{prop}[0, -p+2q+k[3]]^{-1}$$

Partial Fractioned Denominator:

$$\begin{aligned} & -(2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (\text{dot}[p, p] - 2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+k[3]]^{-1} \\ & + (2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (\text{dot}[p, p] - 2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+2q+k[3]]^{-1} \\ & + (2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (\text{dot}[p, p] - 2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -p+q+k[3]]^{-1} \text{prop}[0, -p+2q+k[3]]^{-1} \\ & - (2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (\text{dot}[p, p] - 2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+k[3]]^{-1} \text{prop}[0, -p+2q+k[3]]^{-1} \end{aligned}$$

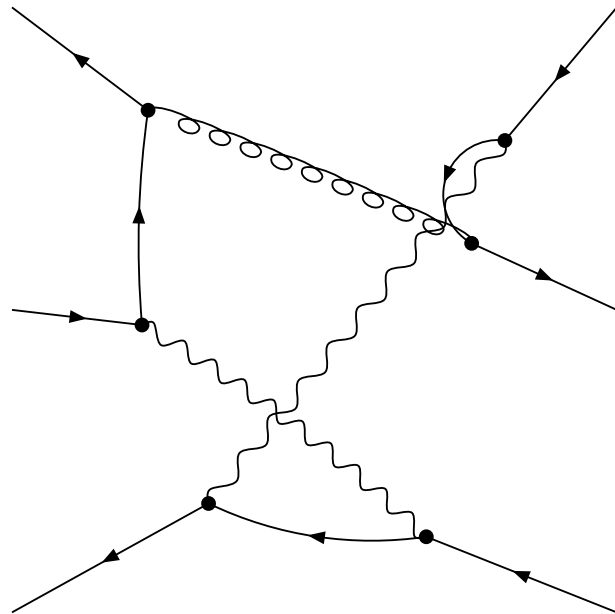


-3-11+17

final

Denominator:

$\text{prop}[0,k[3]]^{-1} \text{prop}[0,p+q]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q+k[3]]^{-1} \text{prop}[0,p+2 \ q+k[3]]^{-1}$



-1+11-17

embedding 9 [-1, -1, -2, -1]

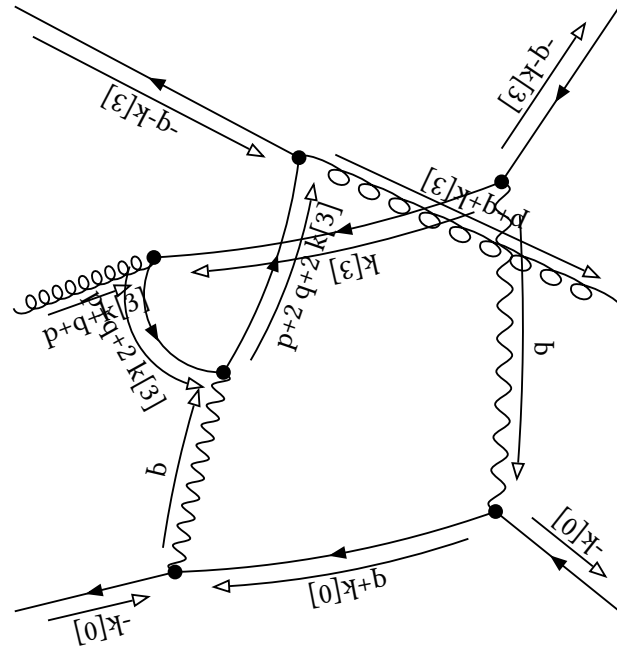
initial

Denominator:

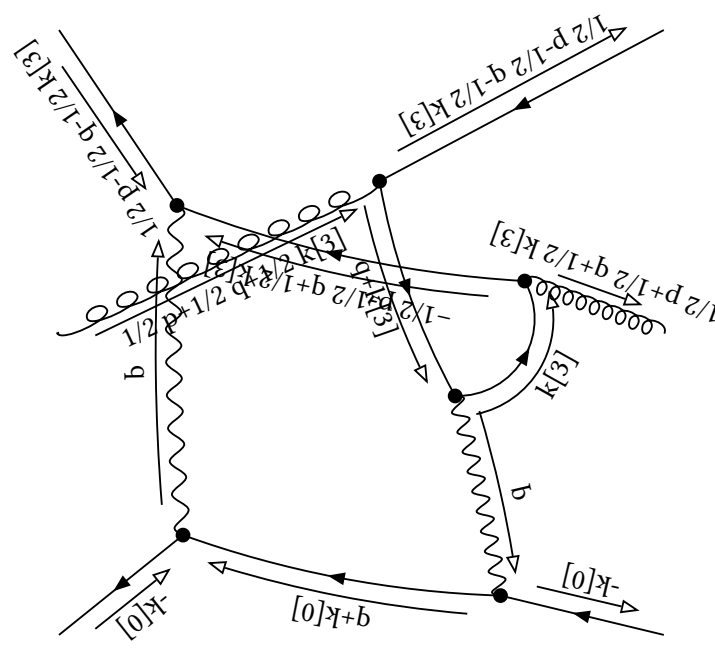
$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p+q+k[3]]^{-1} \text{prop}[0, p+q+2 k[3]]^{-1} \text{prop}[0, p+2 q+2 k[3]]^{-1}$$

Partial Fractioned Denominator:

$$\begin{aligned} & -1/2 (-\text{dot}[p, q] - 1/2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p+q+2 k[3]]^{-1} \\ & + 1/2 (-\text{dot}[p, q] - 1/2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p+2 q+2 k[3]]^{-1} \\ & + (-\text{dot}[p, q] - 1/2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, p+q+2 k[3]]^{-1} \text{prop}[0, p+2 q+2 k[3]]^{-1} \\ & - (-\text{dot}[p, q] - 1/2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p+q+2 k[3]]^{-1} \text{prop}[0, p+2 q+2 k[3]]^{-1} \\ & + 1/2 (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p+q+k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p+2 q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, p+q+k[3]]^{-1} \text{prop}[0, p+2 q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p+q+k[3]]^{-1} \text{prop}[0, p+q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p+q+2 k[3]]^{-1} \text{prop}[0, p+2 q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, p+q+k[3]]^{-1} \text{prop}[0, p+q+2 k[3]]^{-1} \text{prop}[0, p+2 q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \end{aligned}$$



-3+9-17

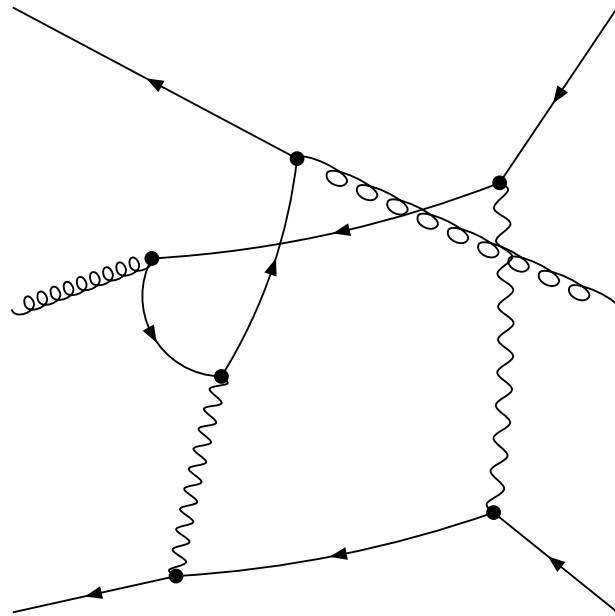


-3-9-15

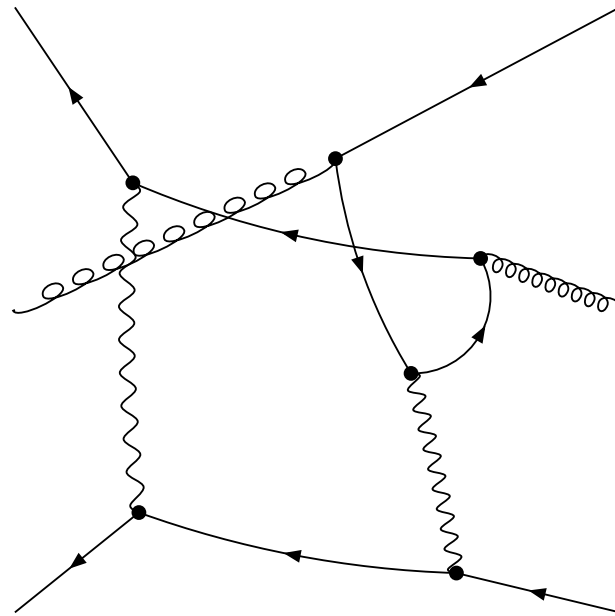
final

Denominator:

$$\text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-1/2 p+1/2 k[3]]^{-1} \text{prop}[0,-1/2 p-1/2 k[3]]^{-1} \text{prop}[0,-1/2 p+q+1/2 k[3]]^{-1}$$



-1-9-11



-1+9-13

embedding 10 [-1, -1, -1, -1]

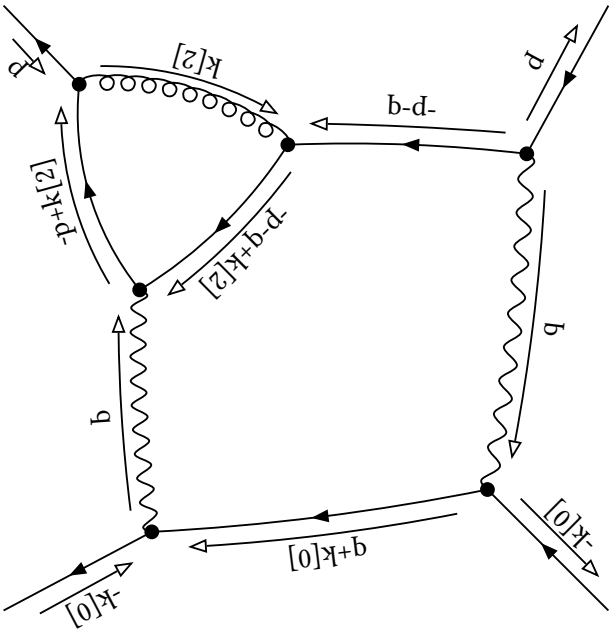
initial

Denominator:

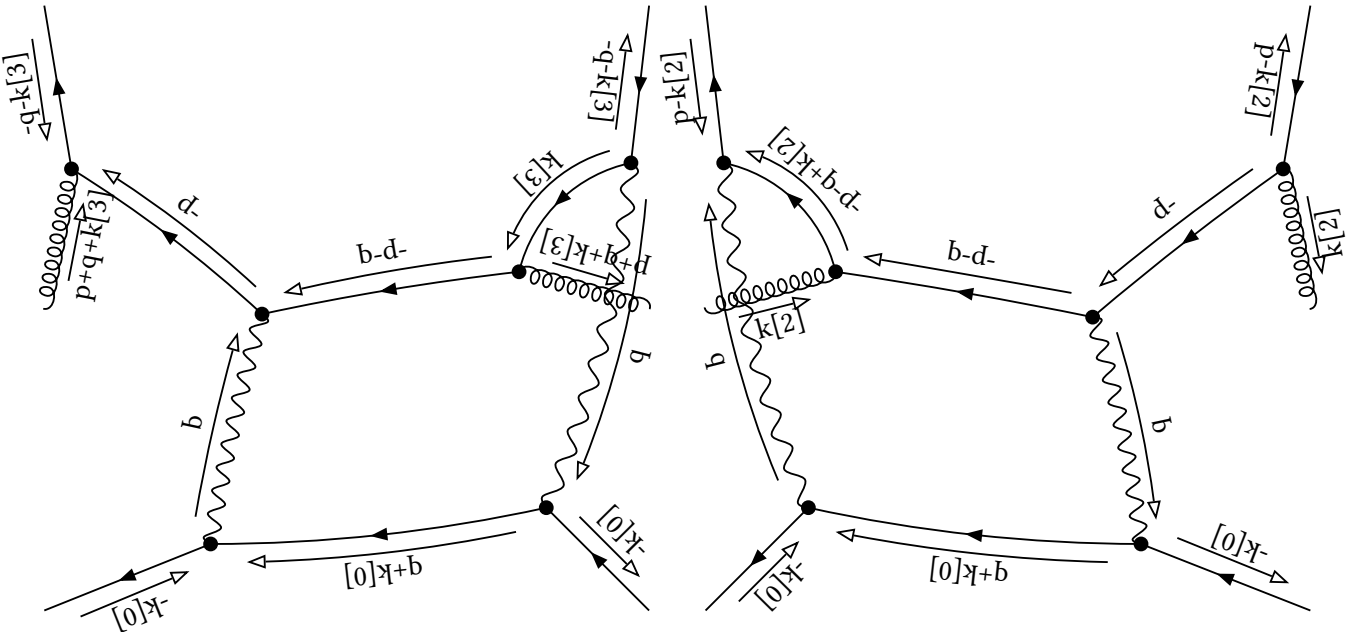
$$\text{prop}[0,k[2]]^{-1} \text{prop}[0,-p]^{-1} \text{prop}[0,-p+k[2]]^{-1} \text{prop}[0,-p-q]^{-1} \text{prop}[0,-p-q+k[2]]^{-1}$$

Partial Fractioned Denominator:

$$(\text{dot}[p,p]+2 \text{dot}[p,q]+\text{dot}[q,q])^{-1} \text{prop}[0,k[2]]^{-1} \text{prop}[0,-p+k[2]]^{-1} \text{prop}[0,-p-q+k[2]]^{-1} \text{dot}[p,p]^{-1}$$

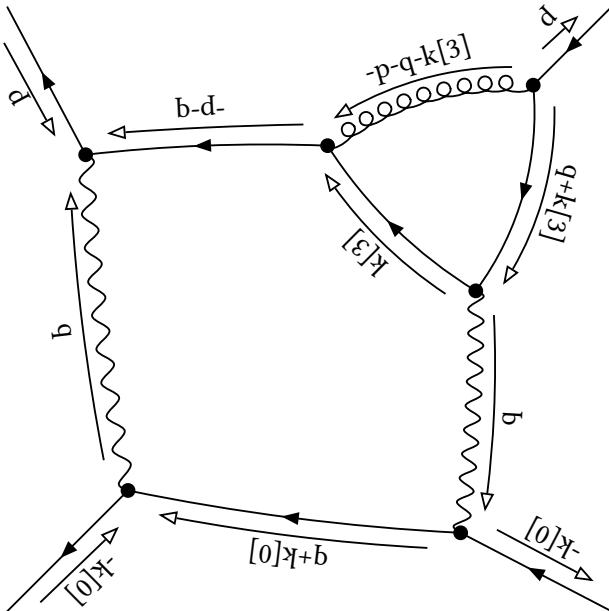


-3-17



-3-9-17

-3+9-15

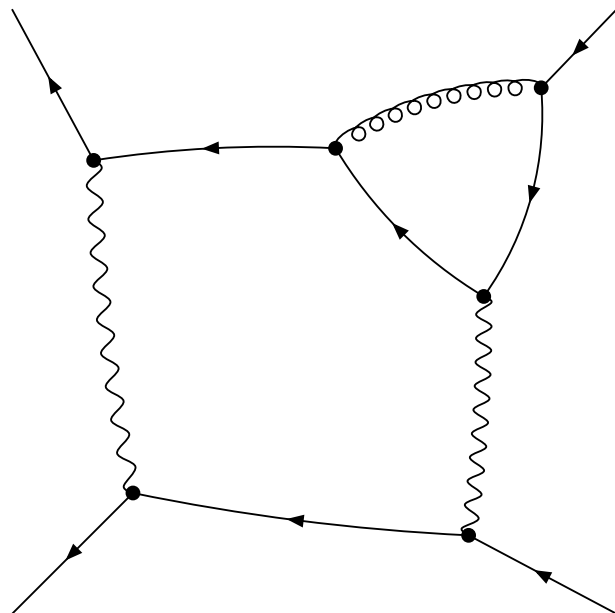


-3-15

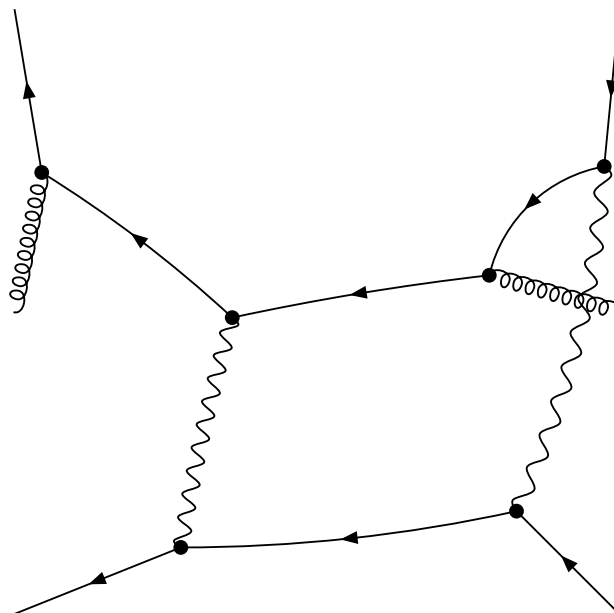
final

Denominator:

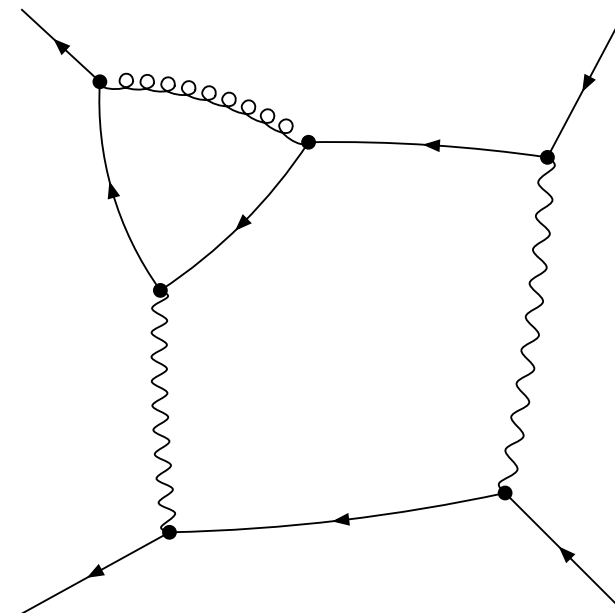
$\text{prop}[0, k[2]]^{-1} \text{prop}[0, -p]^{-1} \text{prop}[0, -p+q]^{-1} \text{prop}[0, -p+k[2]]^{-1} \text{prop}[0, -p+q+k[2]]^{-1}$



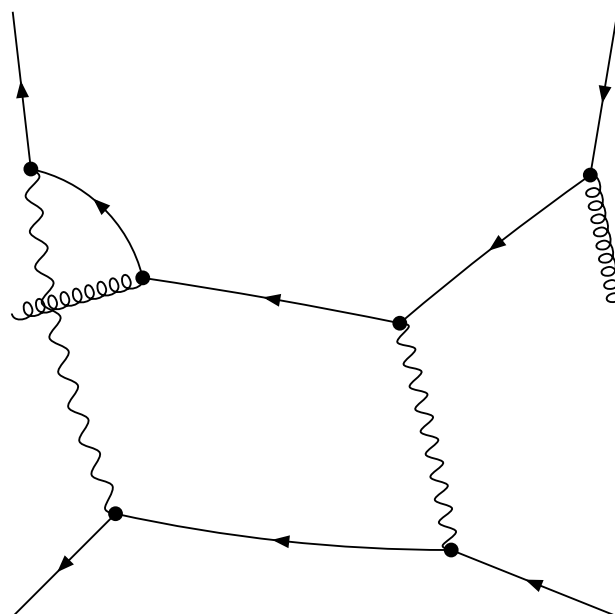
-1-13



-1+9-11



-1-11



-1-9-13

embedding 11 [-1, -1, -1, 0]

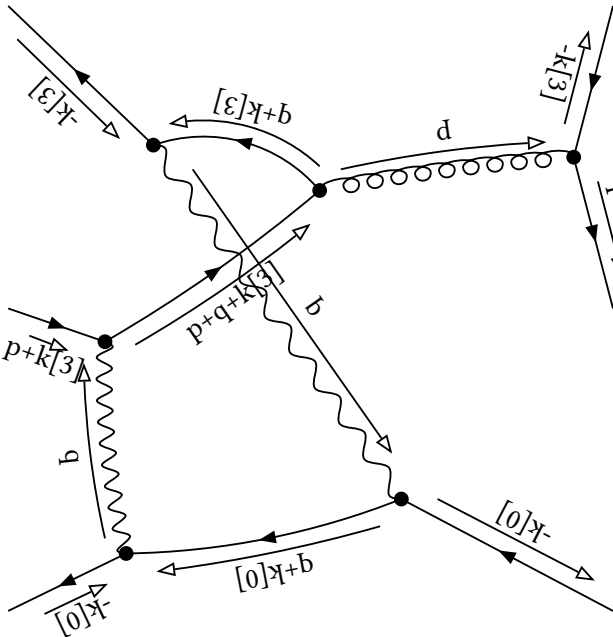
initial

Denominator:

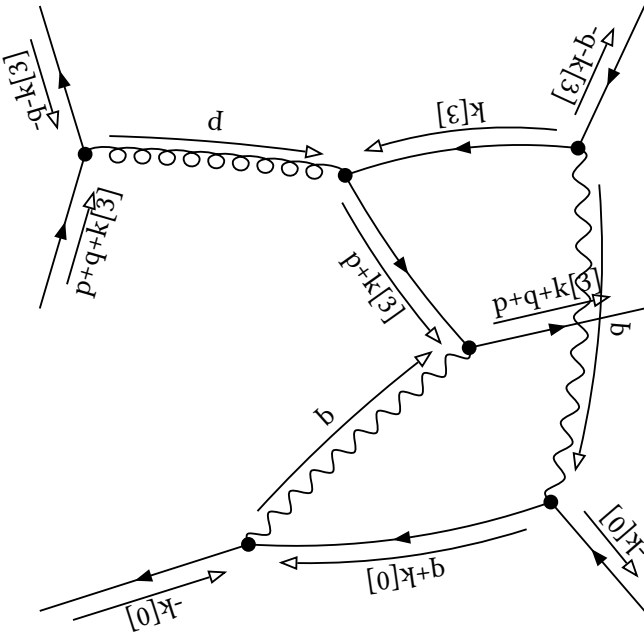
$\text{prop}[0,p]^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q+k[3]]^{-1}$

Partial Fractioned Denominator:

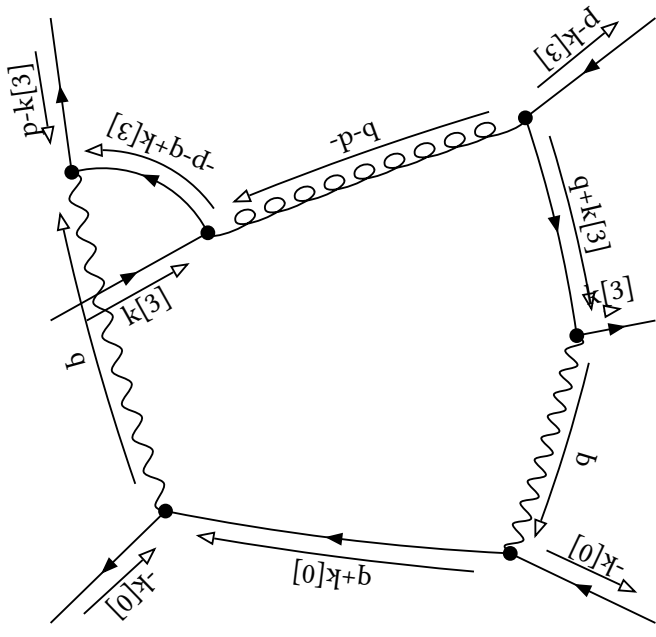
$\begin{aligned} &1/2 \text{prop}[0,k[3]]^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{dot}[p,p]^{-1} \text{dot}[p,q]^{-1} \\ &-1/2 \text{prop}[0,k[3]]^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,p+q+k[3]]^{-1} \text{dot}[p,p]^{-1} \text{dot}[p,q]^{-1} \\ &-1/2 \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q+k[3]]^{-1} \text{dot}[p,p]^{-1} \text{dot}[p,q]^{-1} \\ &+1/2 \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q+k[3]]^{-1} \text{dot}[p,p]^{-1} \text{dot}[p,q]^{-1} \end{aligned}$



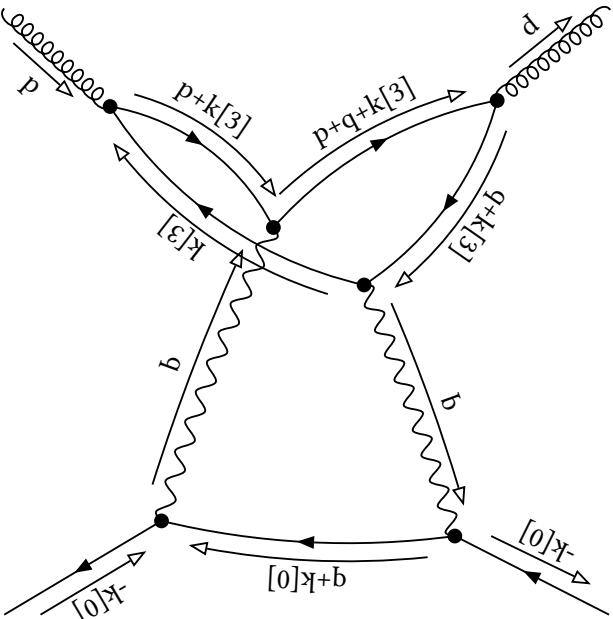
-3+11-13



-3+15-17



-3+13-15

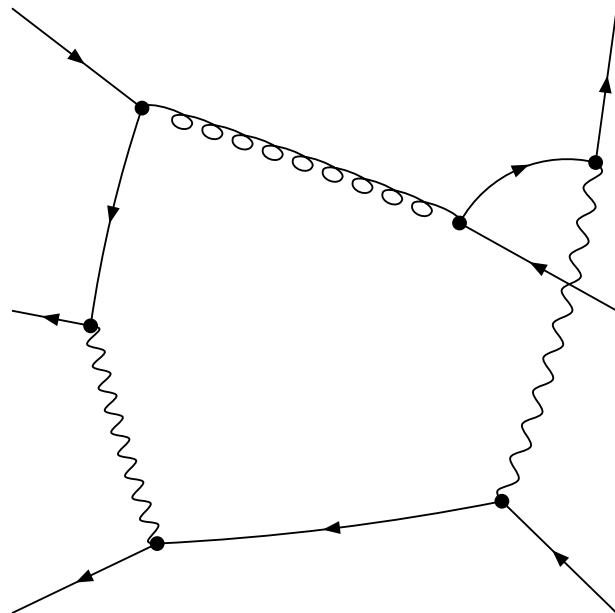


-3+9

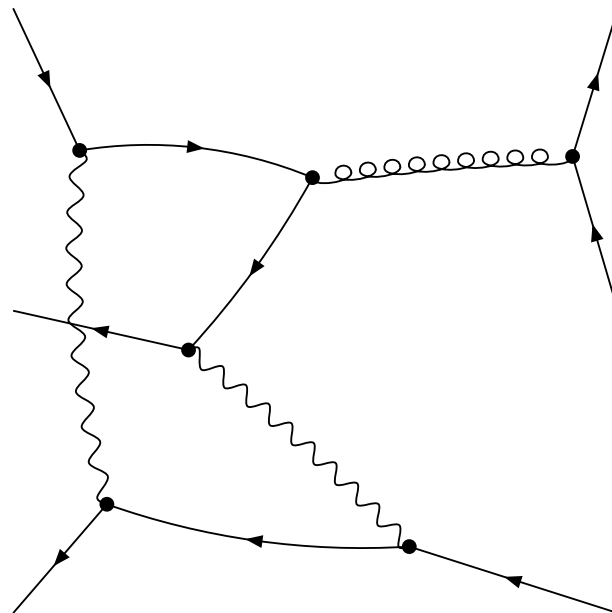
final

Denominator:

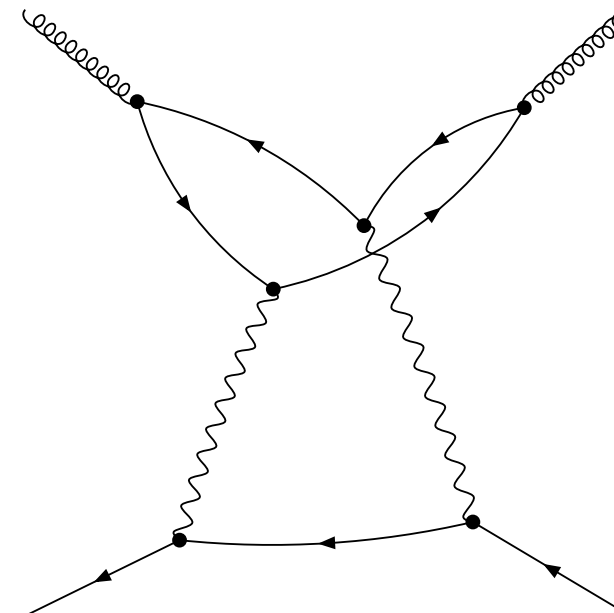
$\text{prop}[0,k[3]]^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-q]^{-1} \text{prop}[0,p-q+k[3]]^{-1}$



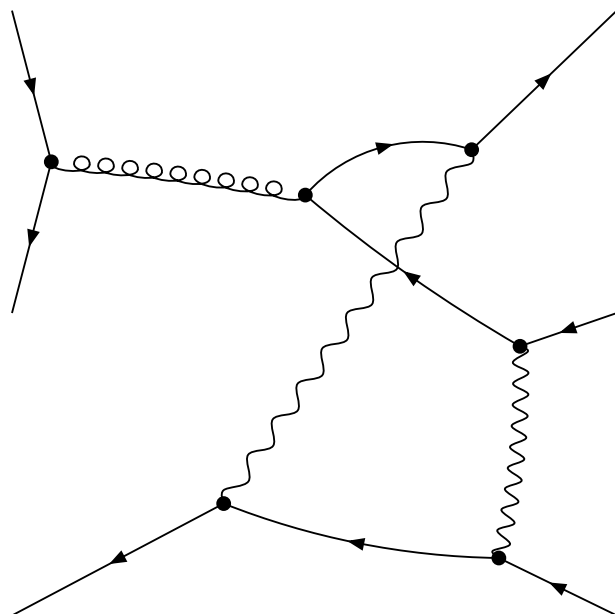
-1-13+15



-1-15+17



-1-9



-1-11+13

embedding 12 [-1, -1, -1, 1]

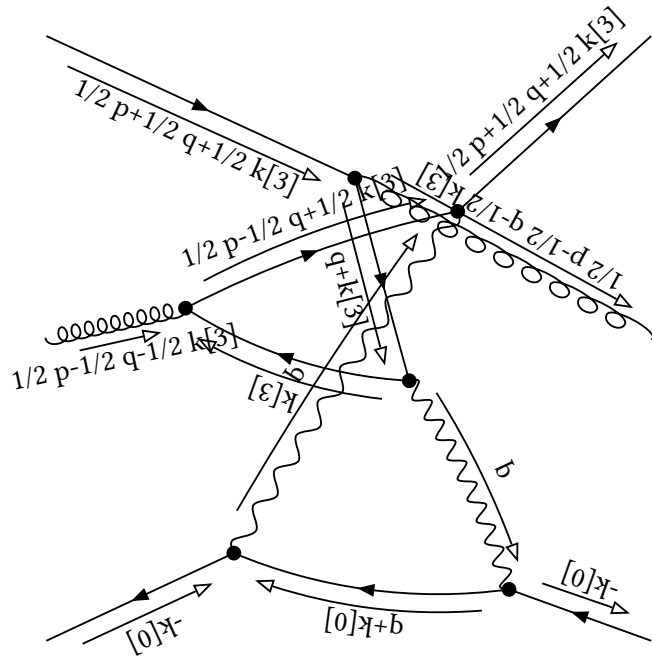
initial

Denominator:

$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, 1/2 p+1/2 q+1/2 k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q+1/2 k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q-1/2 k[3]]^{-1}$$

Partial Fractioned Denominator:

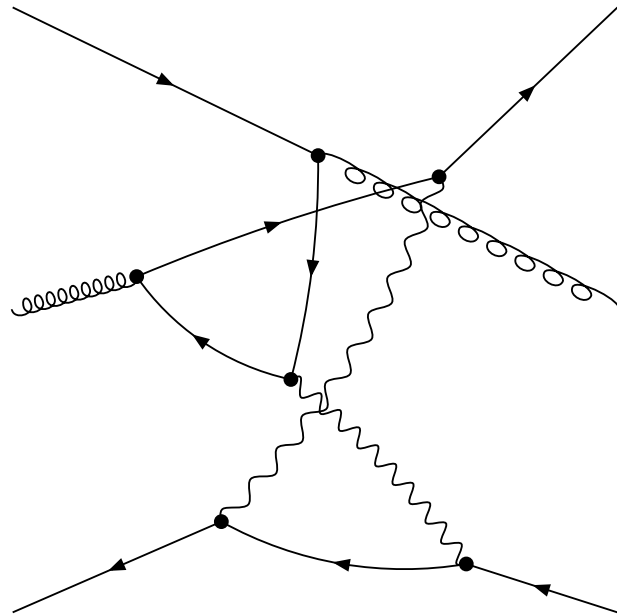
$$\begin{aligned} & -4 (-2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, 1/2 p+1/2 q+1/2 k[3]]^{-1} \\ & +4 (-2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q+1/2 k[3]]^{-1} \\ & -2 (-2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, 1/2 p+1/2 q+1/2 k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q+1/2 k[3]]^{-1} \\ & +2 (-2 \text{dot}[p, q] + \text{dot}[q, q])^{-1} (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, 1/2 p+1/2 q+1/2 k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q+1/2 k[3]]^{-1} \\ & -4 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, 1/2 p+1/2 q+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -4 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q-1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, 1/2 p+1/2 q+1/2 k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q-1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, 1/2 p+1/2 q+1/2 k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q+1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q+1/2 k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q-1/2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -(-\text{dot}[p, p] + 2 \text{dot}[p, q] - \text{dot}[q, q])^{-1} \text{prop}[0, 1/2 p+1/2 q+1/2 k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q+1/2 k[3]]^{-1} \text{prop}[0, 1/2 p-1/2 q-1/2 k[3]]^{-1} \\ & \text{dot}[p, p]^{-1} \end{aligned}$$



final

Denominator:

$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+k[3]]^{-1} \text{prop}[0, -p+2 \ k[3]]^{-1} \text{prop}[0, -p+q+2 \ k[3]]^{-1}$



-1-9+13

embedding 13 $[-1, -1, 0, 0]$

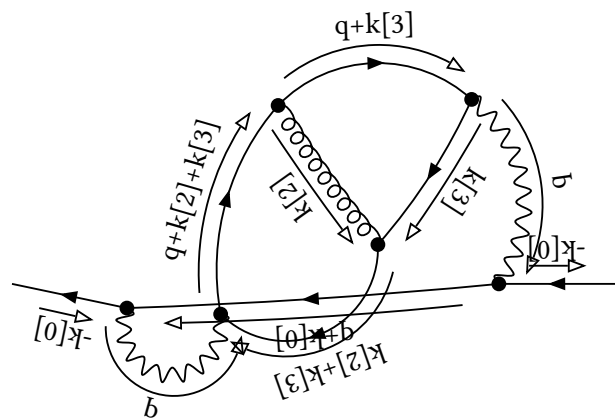
initial

Denominator:

$$\text{prop}[0, k[2]]^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, k[2]+k[3]]^{-1} \text{prop}[0, q+k[2]+k[3]]^{-1}$$

Partial Fractioned Denominator:

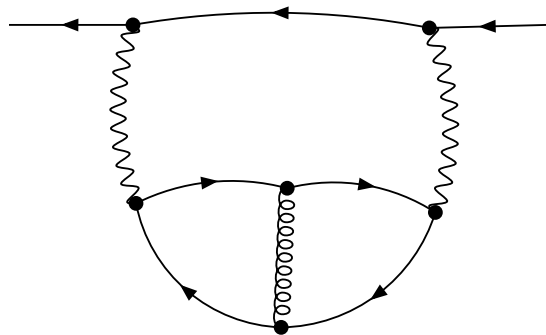
$$\text{prop}[0, k[2]]^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, k[2]+k[3]]^{-1} \text{prop}[0, q+k[2]+k[3]]^{-1}$$



final

Denominator:

$\text{prop}[0,k[2]]^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,k[2]+k[3]]^{-1} \text{prop}[0,q+k[2]+k[3]]^{-1}$



-1

embedding 14 [-1, -1, 0, 1]

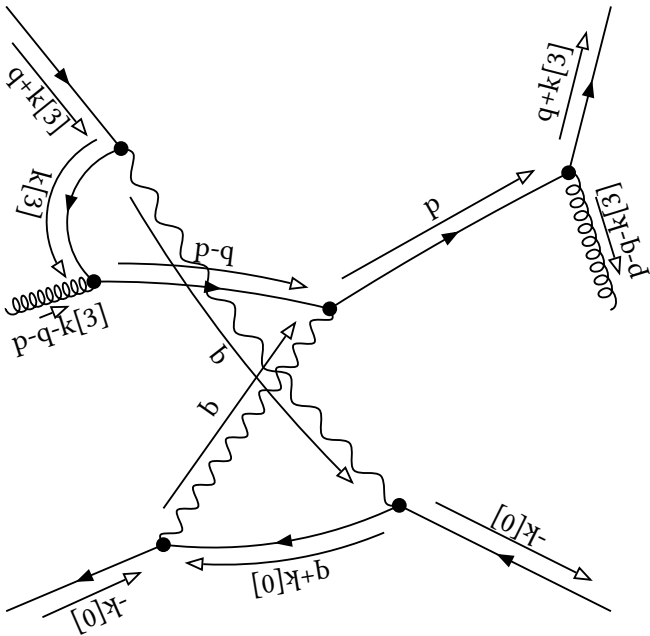
initial

Denominator:

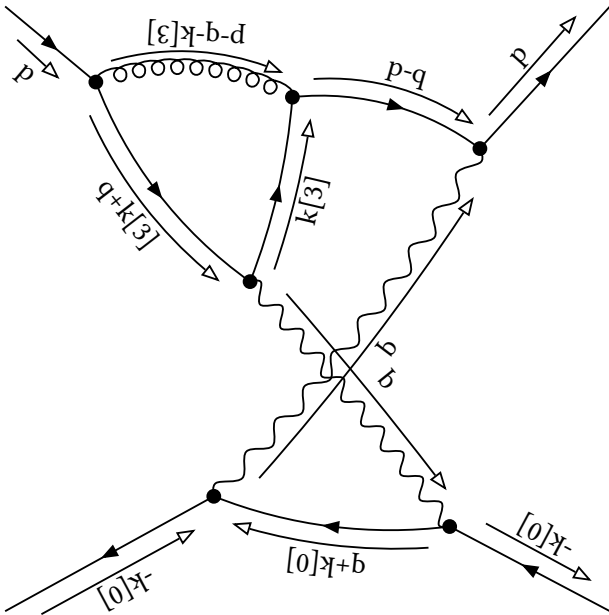
$\text{prop}[0,p]^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-q]^{-1} \text{prop}[0,p-q-k[3]]^{-1}$

Partial Fractioned Denominator:

$(\text{dot}[p,p]-2 \text{dot}[p,q]+\text{dot}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-q-k[3]]^{-1} \text{dot}[p,p]^{-1}$



-3+9+17

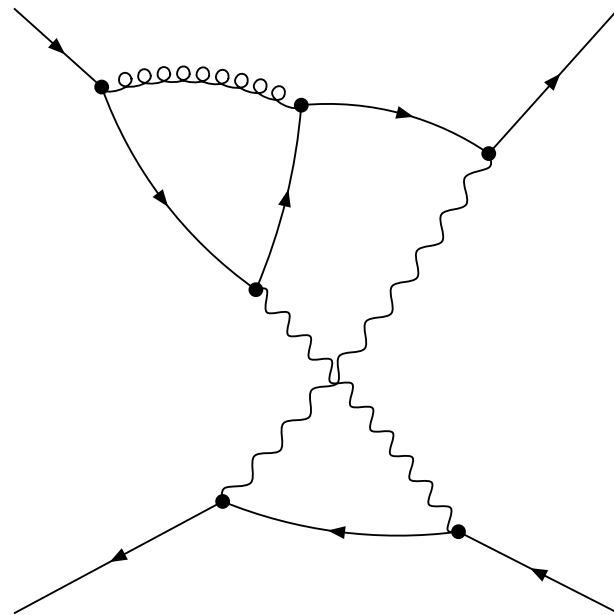


-3+15

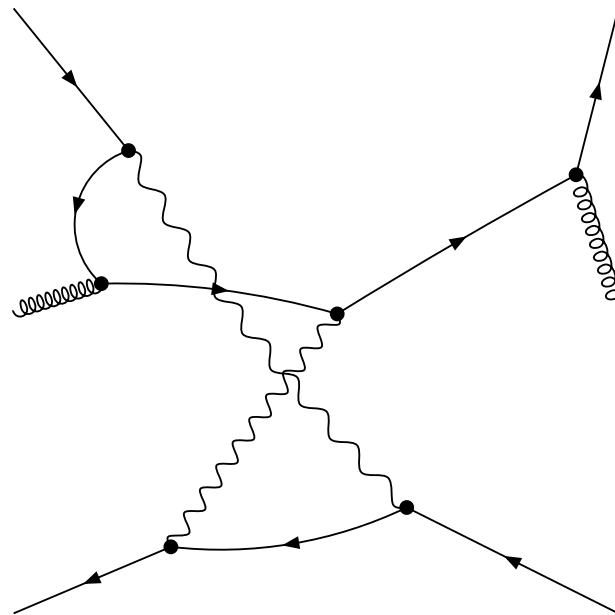
final

Denominator:

$\text{prop}[0,p]^{-1} \text{prop}[0,k[2]]^{-1} \text{prop}[0,p+q]^{-1} \text{prop}[0,p+k[2]]^{-1} \text{prop}[0,p+q+k[2]]^{-1}$



-1+13



-1-9+11

embedding 15 [-1, -1, 1, 0]

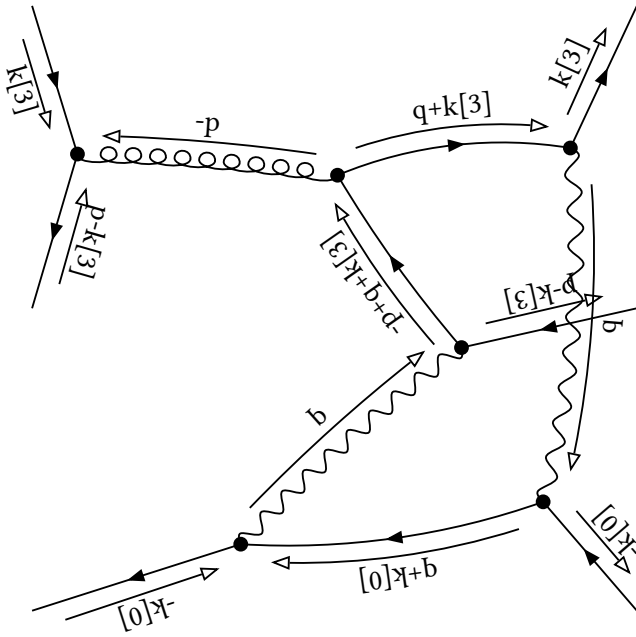
initial

Denominator:

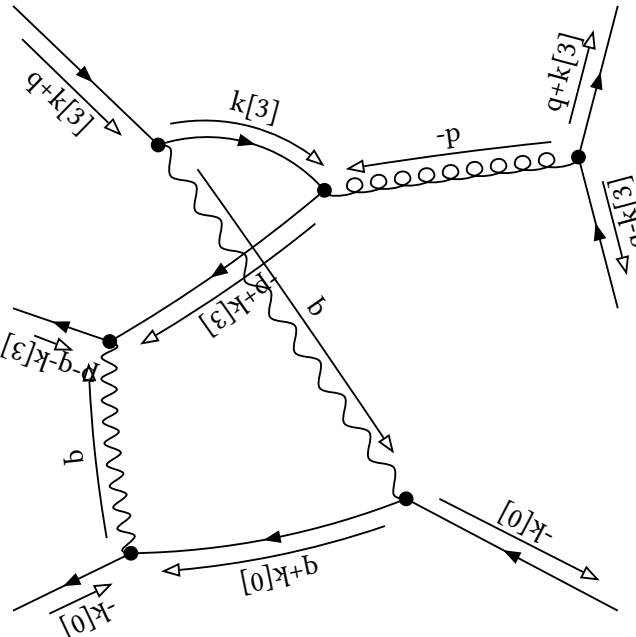
$$\text{prop}[0,k[3]]^{-1} \text{prop}[0,-p]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p+k[3]]^{-1} \text{prop}[0,-p+q+k[3]]^{-1}$$

Partial Fractioned Denominator:

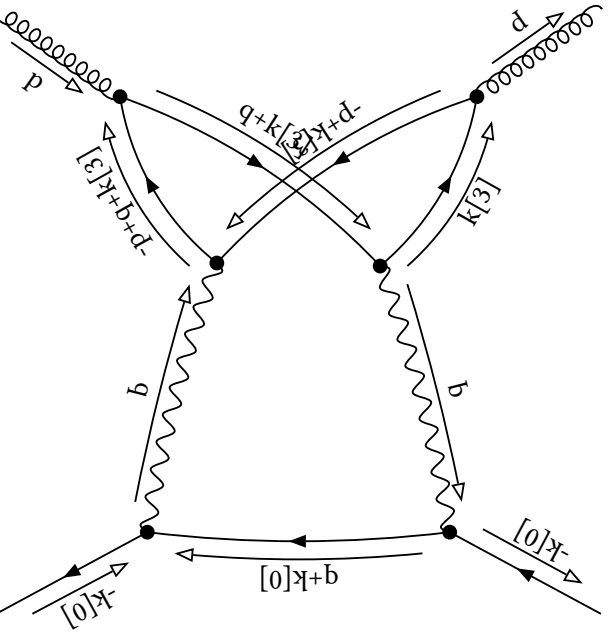
$$\begin{aligned} &-1/2 \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p+k[3]]^{-1} \text{dot}[p,p]^{-1} \text{dot}[p,q]^{-1} \\ &+1/2 \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p+q+k[3]]^{-1} \text{dot}[p,p]^{-1} \text{dot}[p,q]^{-1} \\ &+1/2 \text{prop}[0,k[3]]^{-1} \text{prop}[0,-p+k[3]]^{-1} \text{prop}[0,-p+q+k[3]]^{-1} \text{dot}[p,p]^{-1} \text{dot}[p,q]^{-1} \\ &-1/2 \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p+k[3]]^{-1} \text{prop}[0,-p+q+k[3]]^{-1} \text{dot}[p,p]^{-1} \text{dot}[p,q]^{-1} \end{aligned}$$



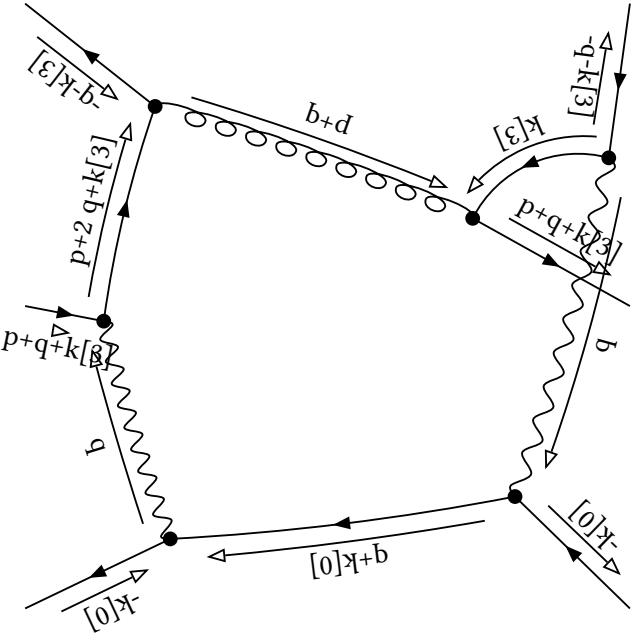
-3-11+13



-3-15+17



-3-9

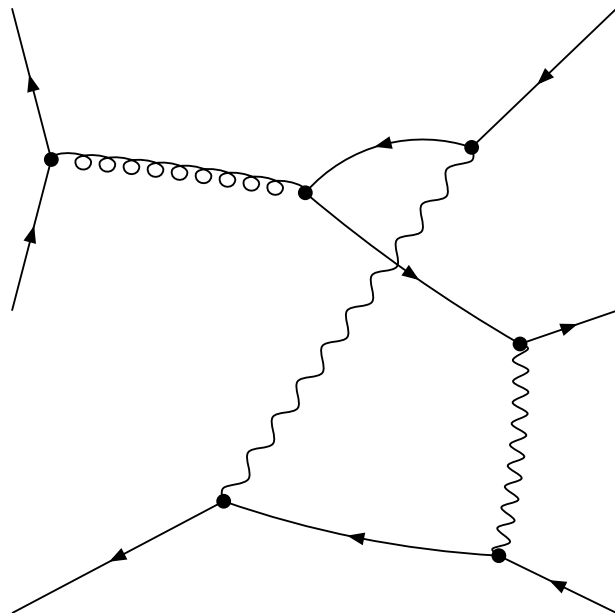


-3+11-17

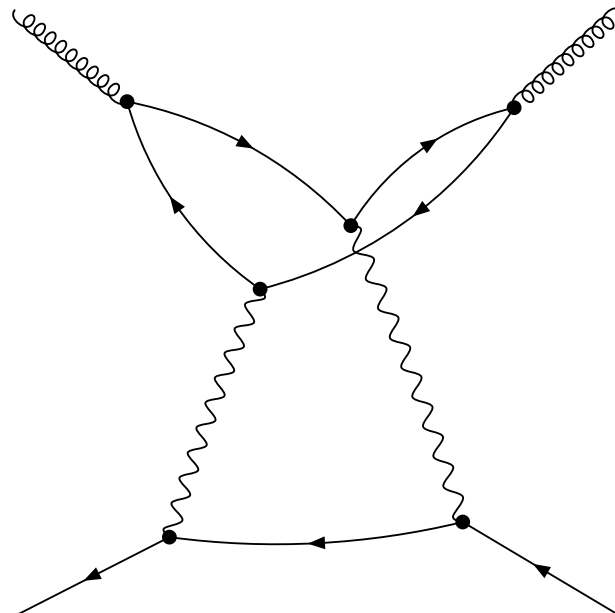
final

Denominator:

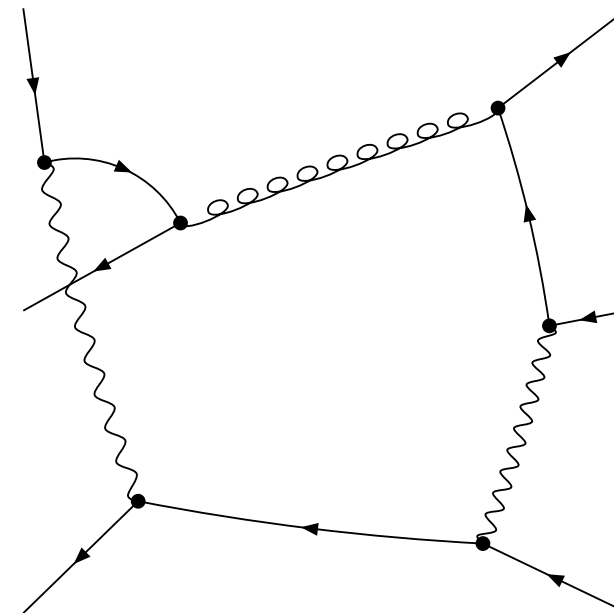
$\text{prop}[0,p]^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q+k[3]]^{-1}$



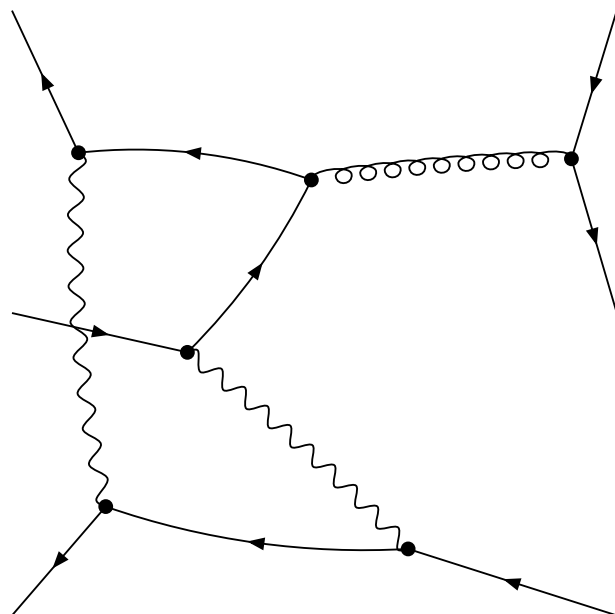
-1+15-17



-1+9



-1-11+17



-1+11-13

embedding 16 [-1, -1, 1, 1]

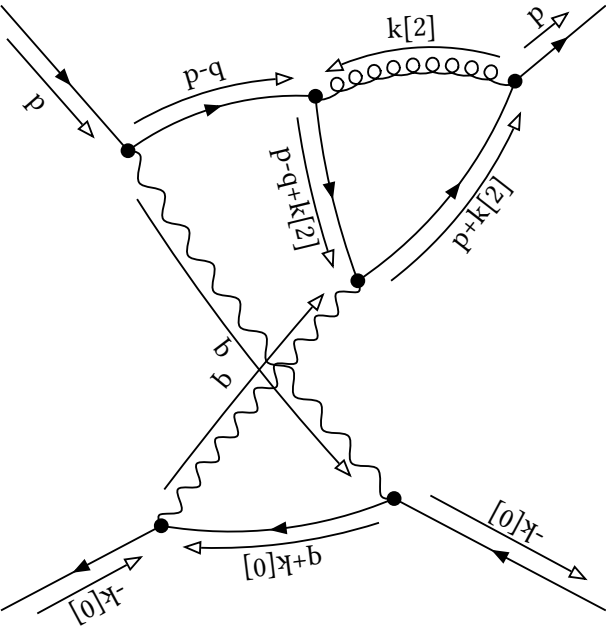
initial

Denominator:

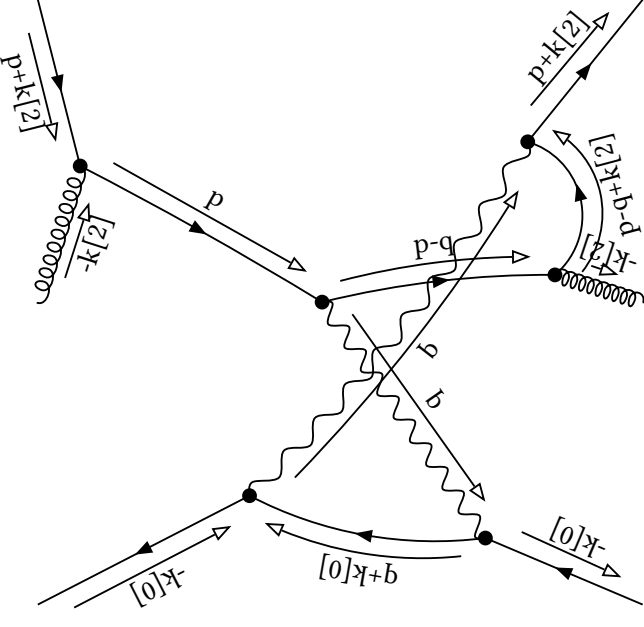
$\text{prop}[0,p]^{-1} \text{prop}[0,k[2]]^{-1} \text{prop}[0,p+k[2]]^{-1} \text{prop}[0,p-q]^{-1} \text{prop}[0,p-q+k[2]]^{-1}$

Partial Fractioned Denominator:

$(\text{dot}[p,p]-2 \text{dot}[p,q]+\text{dot}[q,q])^{-1} \text{prop}[0,k[2]]^{-1} \text{prop}[0,p+k[2]]^{-1} \text{prop}[0,p-q+k[2]]^{-1} \text{dot}[p,p]^{-1}$



-3+17

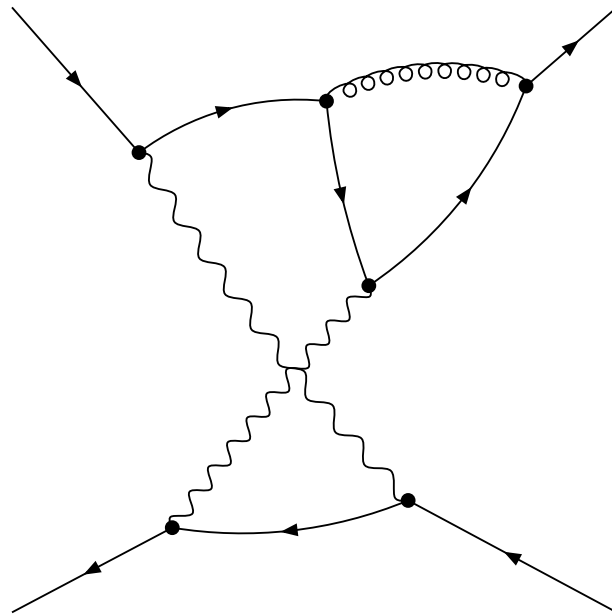


-3-9+15

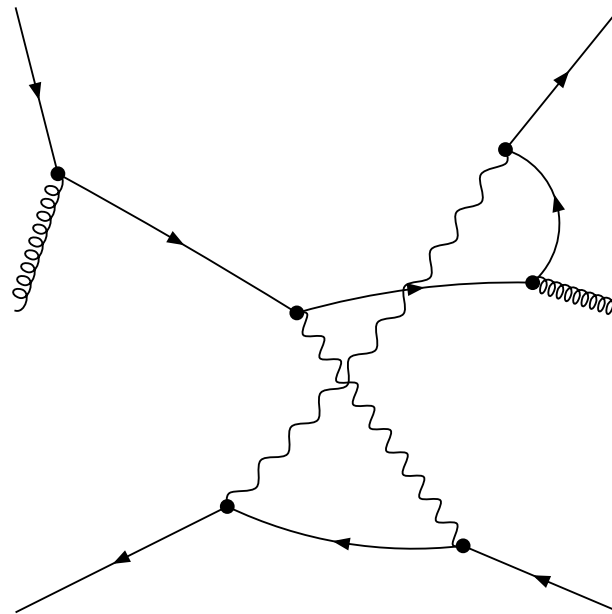
final

Denominator:

$\text{prop}[0,p]^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,p+q]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1}$



$-1+11$



$-1+9+13$

embedding 17 [-1, -1, 1, 2]

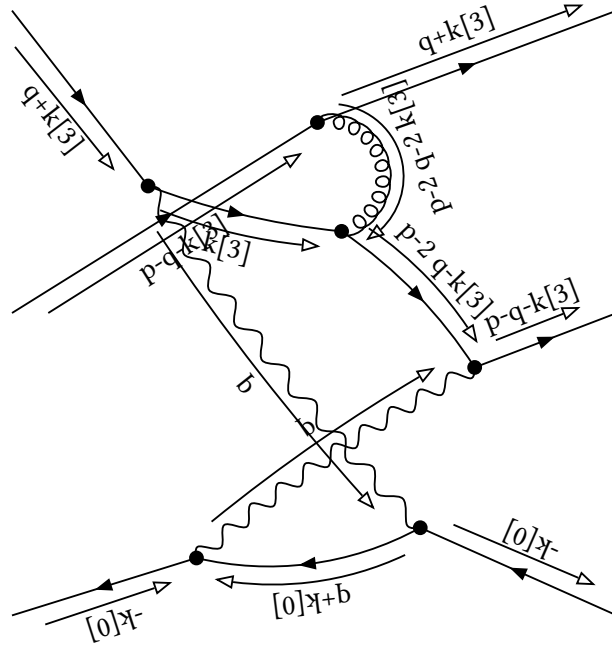
initial

Denominator:

$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-q-k[3]]^{-1} \text{prop}[0, p-2 \ q-k[3]]^{-1} \text{prop}[0, p-2 \ q-2 \ k[3]]^{-1}$$

Partial Fractioned Denominator:

$$\begin{aligned} & 1/2 (2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-q-k[3]]^{-1} \\ & - 1/2 (2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-2 \ q-k[3]]^{-1} \\ & - 1/2 (2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, p-q-k[3]]^{-1} \text{prop}[0, p-2 \ q-k[3]]^{-1} \\ & + 1/2 (2 \text{dot}[p, q] - 2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-q-k[3]]^{-1} \text{prop}[0, p-2 \ q-k[3]]^{-1} \\ & - (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-2 \ q-2 \ k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, p-q-k[3]]^{-1} \text{prop}[0, p-2 \ q-2 \ k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-q-k[3]]^{-1} \text{prop}[0, p-2 \ q-k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-2 \ q-k[3]]^{-1} \text{prop}[0, p-2 \ q-2 \ k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] - 2 \text{dot}[p, q] + 2 \text{dot}[q, q])^{-1} \text{prop}[0, p-q-k[3]]^{-1} \text{prop}[0, p-2 \ q-k[3]]^{-1} \text{prop}[0, p-2 \ q-2 \ k[3]]^{-1} \text{dot}[p, p]^{-1} \end{aligned}$$

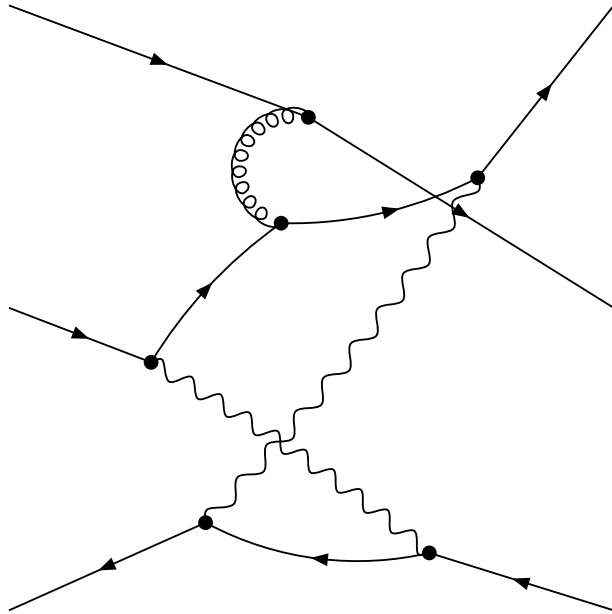


$$-3+15+17$$

final

Denominator:

$\text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{prop}[0,p-2 \ k[3]]^{-1} \text{prop}[0,p+q-k[3]]^{-1}$



-1+11+13

embedding 18 [-1, -1, 2, 1]

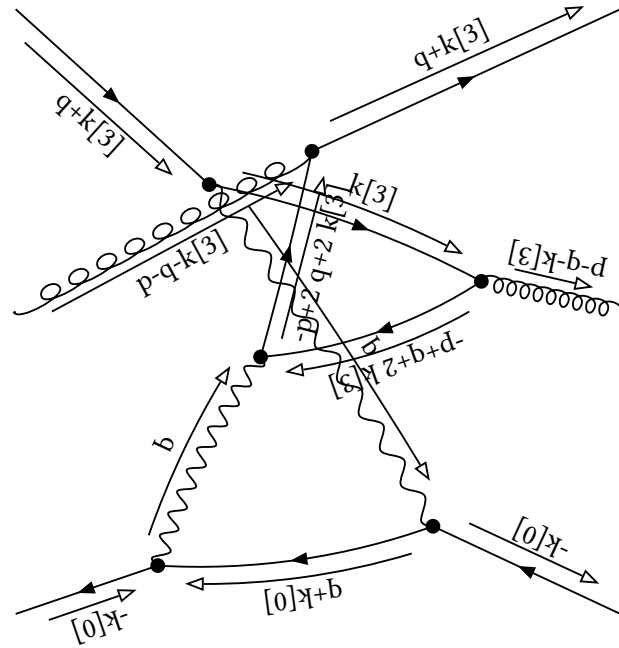
initial

Denominator:

$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{prop}[0, -p+2 q+2 k[3]]^{-1}$$

Partial Fractioned Denominator:

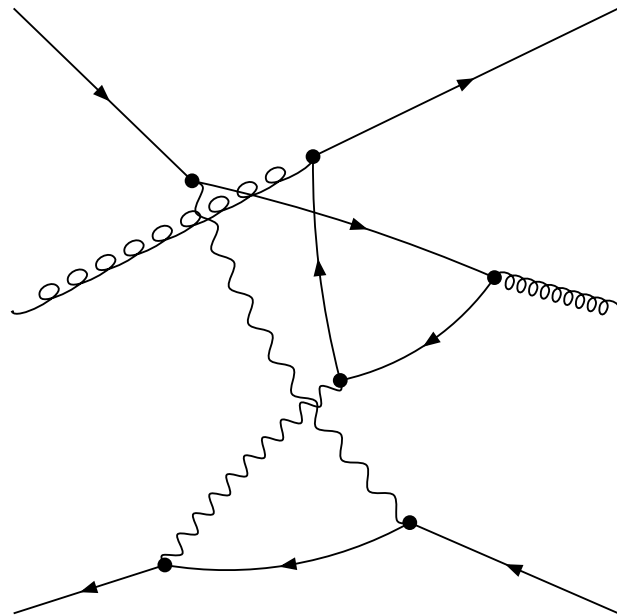
$$\begin{aligned} & -1/2 (\text{dot}[p, q] - 1/2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \\ & + 1/2 (\text{dot}[p, q] - 1/2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+2 q+2 k[3]]^{-1} \\ & + (\text{dot}[p, q] - 1/2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{prop}[0, -p+2 q+2 k[3]]^{-1} \\ & - (\text{dot}[p, q] - 1/2 \text{dot}[q, q])^{-1} (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{prop}[0, -p+2 q+2 k[3]]^{-1} \\ & + 1/2 (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+2 q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -p+q+k[3]]^{-1} \text{prop}[0, -p+2 q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{prop}[0, -p+2 q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & + 2 (1/2 \text{dot}[p, p] - \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, -p+q+k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{prop}[0, -p+2 q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \end{aligned}$$



final

Denominator:

$\text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,1/2 \ p+1/2 \ k[3]]^{-1} \text{prop}[0,1/2 \ p-1/2 \ k[3]]^{-1} \text{prop}[0,1/2 \ p+q+1/2 \ k[3]]^{-1}$



-1+9+11

embedding 19 [-1, 0, -1, 1]

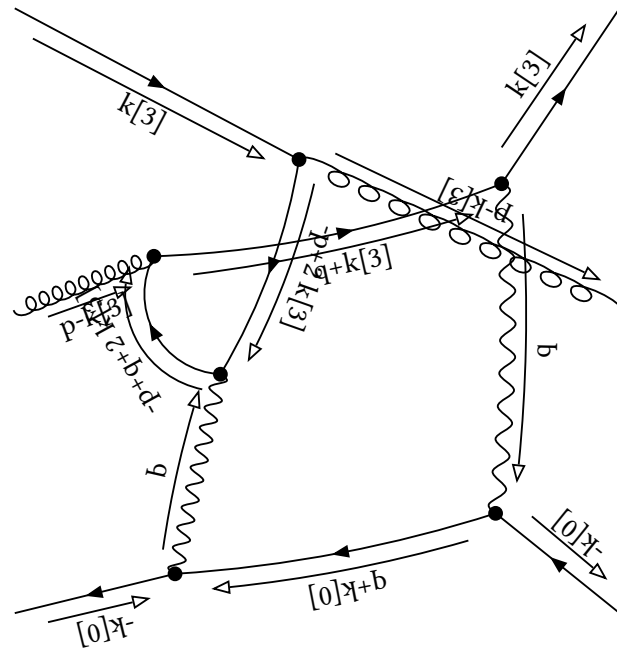
initial

Denominator:

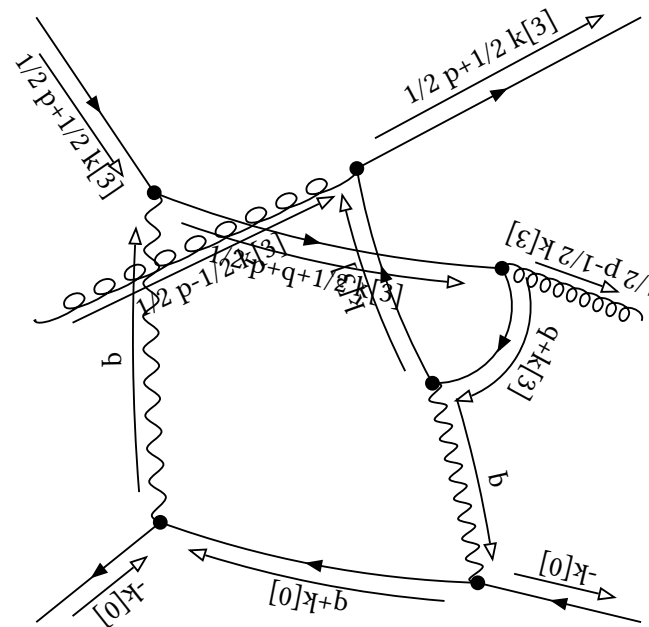
$$\text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+k[3]]^{-1} \text{prop}[0, -p+2 k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1}$$

Partial Fractioned Denominator:

$$\begin{aligned} & -(\text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +(\text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (\text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -p+2 k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & -2 (\text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+2 k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +1/2 (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, k[3]]^{-1} \text{prop}[0, -p+k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & - (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+k[3]]^{-1} \text{prop}[0, -p+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+2 k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \\ & +2 (1/2 \text{dot}[p, p] + \text{dot}[p, q] + 1/2 \text{dot}[q, q])^{-1} \text{prop}[0, -p+k[3]]^{-1} \text{prop}[0, -p+2 k[3]]^{-1} \text{prop}[0, -p+q+2 k[3]]^{-1} \text{dot}[p, p]^{-1} \end{aligned}$$



-3-9+13

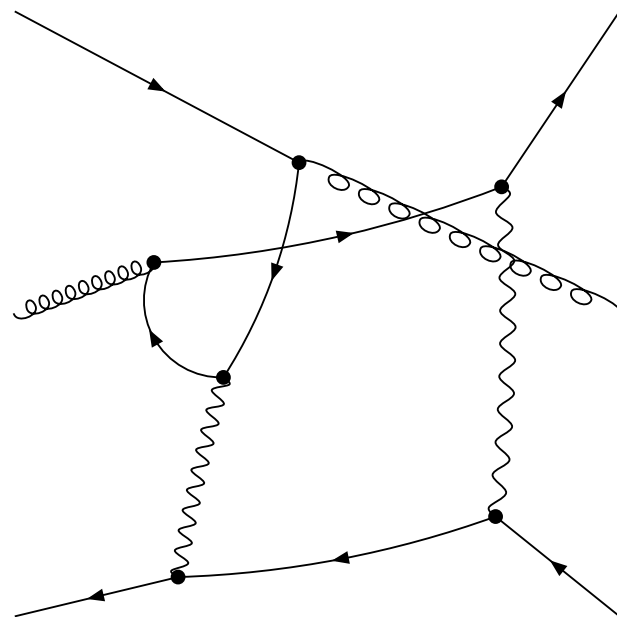


-3+9+11

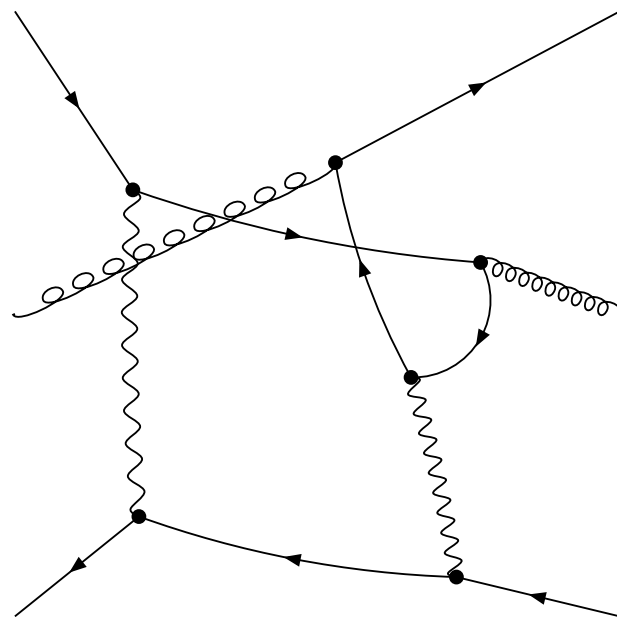
final

Denominator:

$\text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,1/2 \ p+1/2 \ q+1/2 \ k[3]]^{-1} \text{prop}[0,1/2 \ p-1/2 \ q+1/2 \ k[3]]^{-1} \text{prop}[0,1/2 \ p-1/2 \ q-1/2 \ k[3]]^{-1}$



$-1+9+15$



$-1-9+17$

embedding 20 [-1, 0, 0, 1]

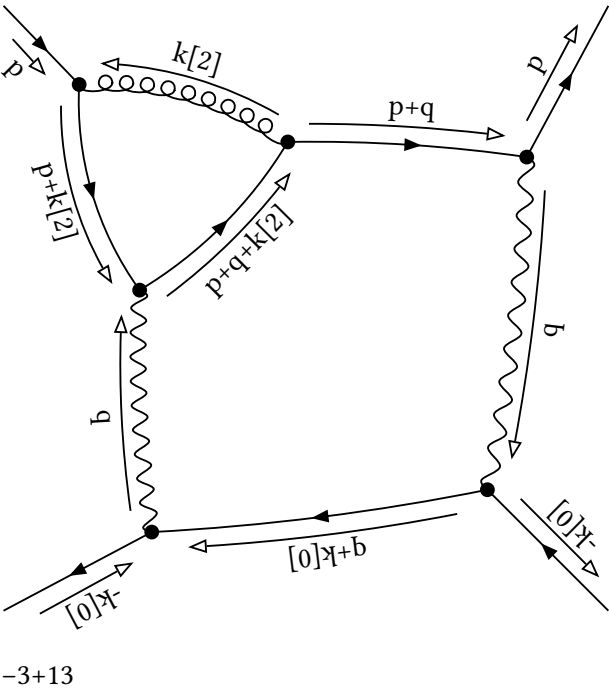
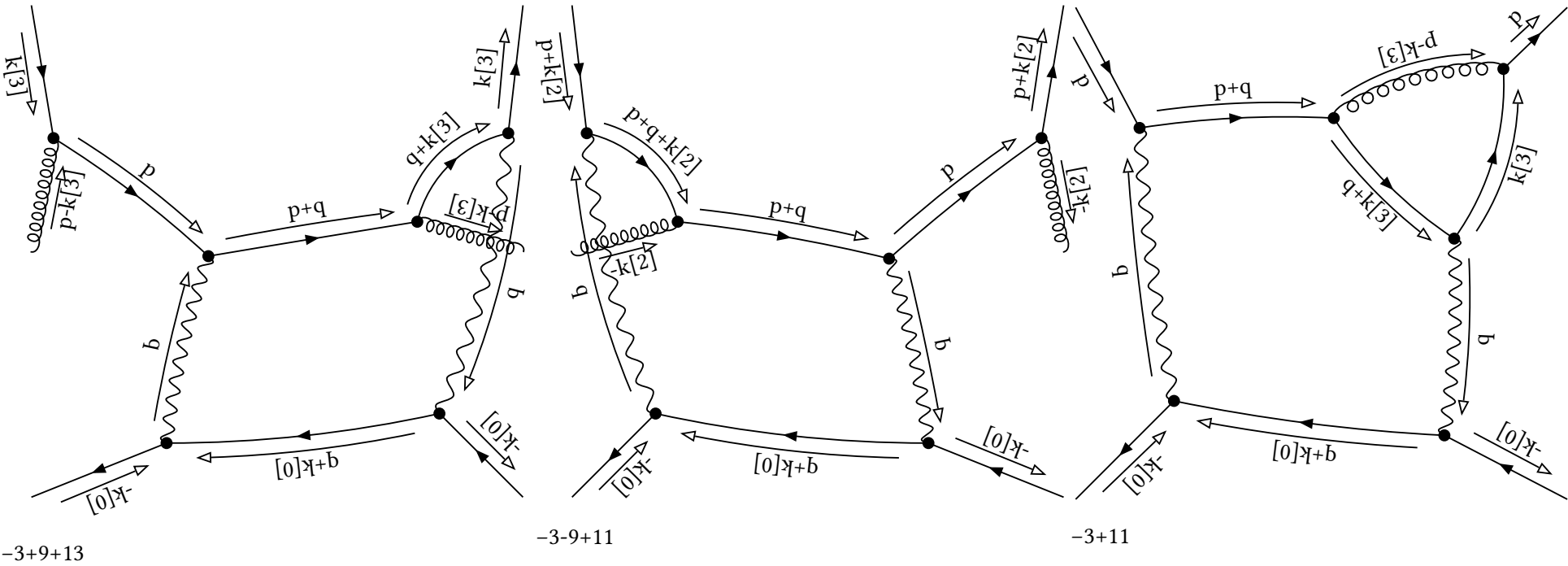
initial

Denominator:

$\text{prop}[0,p]^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,p+q]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1}$

Partial Fractioned Denominator:

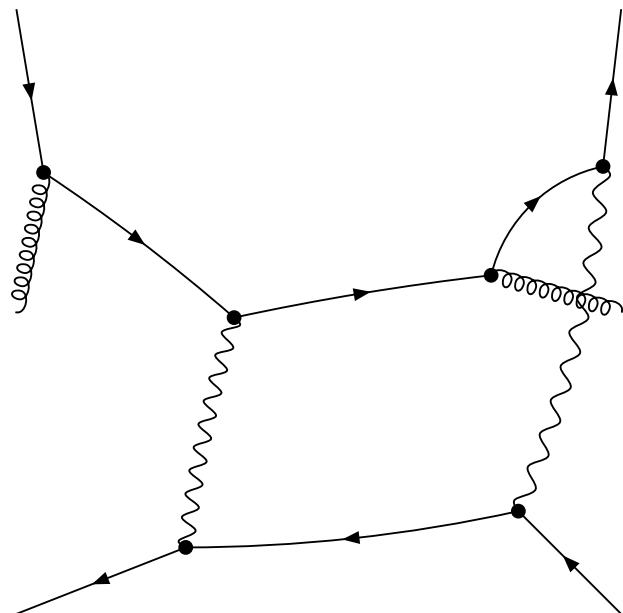
$(\text{dot}[p,p]+2 \text{dot}[p,q]+\text{dot}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{dot}[p,p]^{-1}$



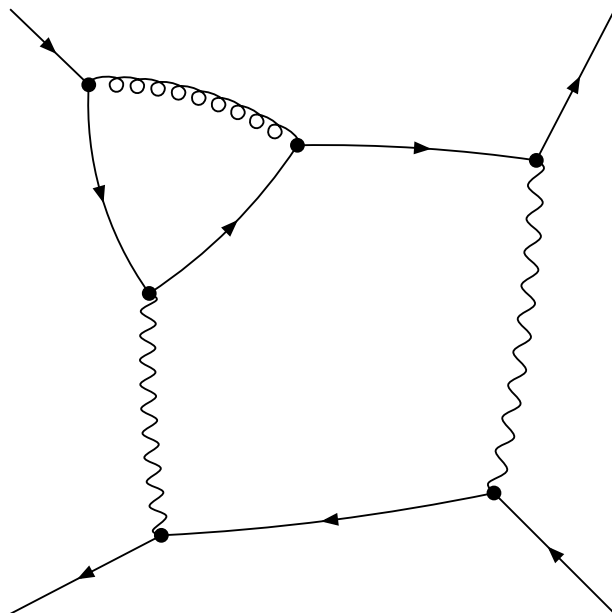
final

Denominator:

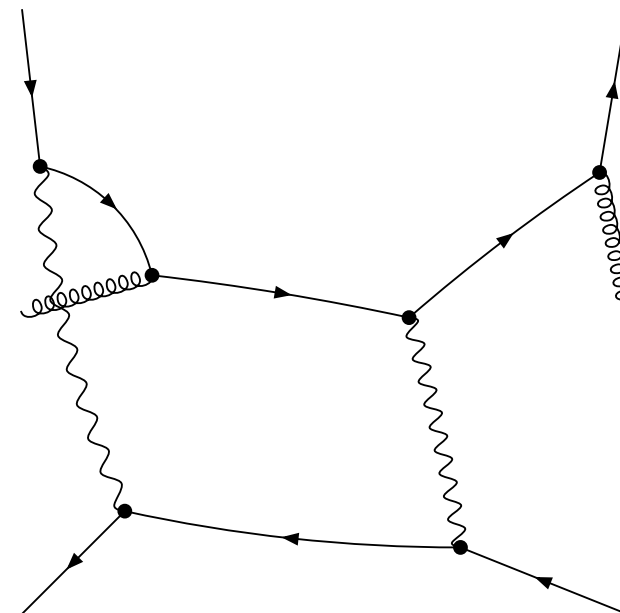
$\text{prop}[0,p]^{-1} \text{prop}[0,k[2]]^{-1} \text{prop}[0,p+k[2]]^{-1} \text{prop}[0,p-q]^{-1} \text{prop}[0,p-q+k[2]]^{-1}$



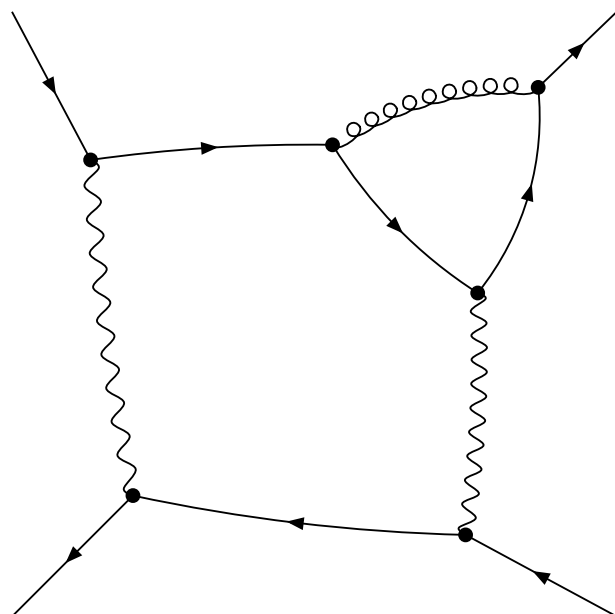
-1-9+15



-1+15



-1+9+17



-1+17

embedding 21 $[-1, 0, 1, 2]$

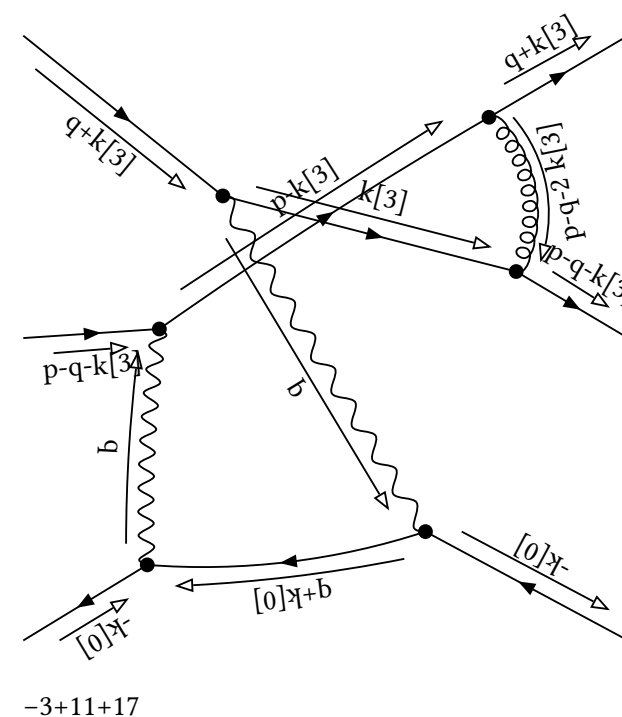
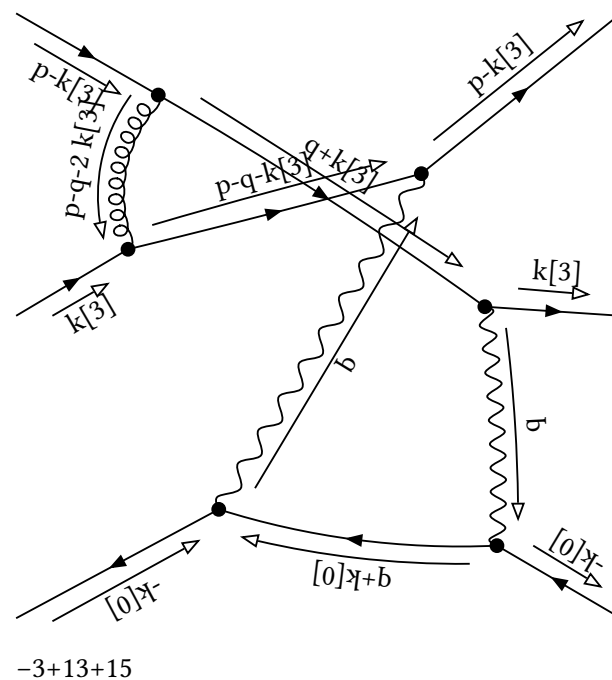
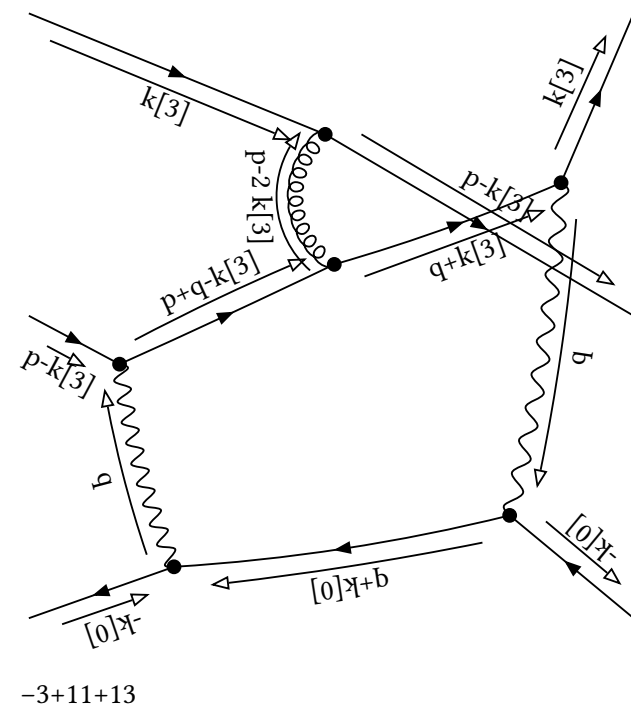
initial

Denominator:

$$\text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{prop}[0,p-2 \ k[3]]^{-1} \text{prop}[0,p+q-k[3]]^{-1}$$

Partial Fractioned Denominator:

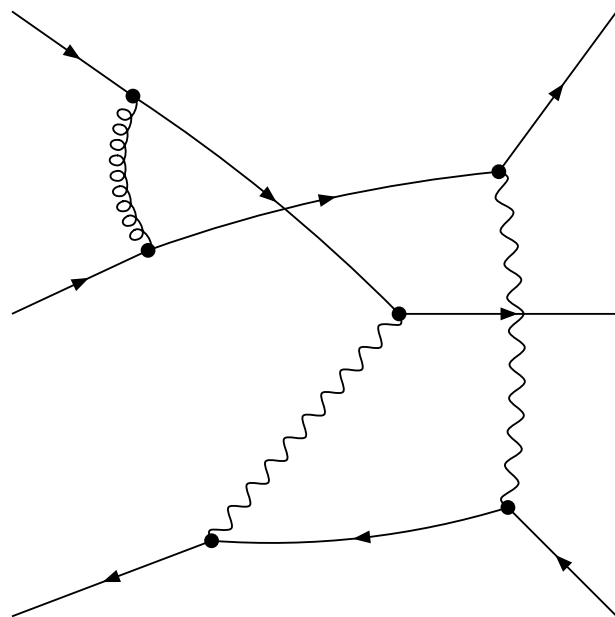
$$\begin{aligned} & - (2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{dot}[p,p]^{-1} \\ & + (2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q-k[3]]^{-1} \text{dot}[p,p]^{-1} \\ & - (2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{prop}[0,p+q-k[3]]^{-1} \text{dot}[p,p]^{-1} \\ & + (2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{prop}[0,p+q-k[3]]^{-1} \text{dot}[p,p]^{-1} \\ & + 2 (1/2 \text{ dot}[p,p] + 2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-2 k[3]]^{-1} \text{dot}[p,p]^{-1} \\ & - (1/2 \text{ dot}[p,p] + 2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p+q-k[3]]^{-1} \text{dot}[p,p]^{-1} \\ & + 2 (1/2 \text{ dot}[p,p] + 2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,k[3]]^{-1} \text{prop}[0,p-2 k[3]]^{-1} \text{prop}[0,p+q-k[3]]^{-1} \text{dot}[p,p]^{-1} \\ & + 2 (1/2 \text{ dot}[p,p] + 2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{prop}[0,p-2 k[3]]^{-1} \text{dot}[p,p]^{-1} \\ & - (1/2 \text{ dot}[p,p] + 2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{prop}[0,p+q-k[3]]^{-1} \text{dot}[p,p]^{-1} \\ & + 2 (1/2 \text{ dot}[p,p] + 2 \text{ dot}[p,q] + 2 \text{ dot}[q,q])^{-1} \text{prop}[0,p-k[3]]^{-1} \text{prop}[0,p-2 k[3]]^{-1} \text{prop}[0,p+q-k[3]]^{-1} \text{dot}[p,p]^{-1} \end{aligned}$$



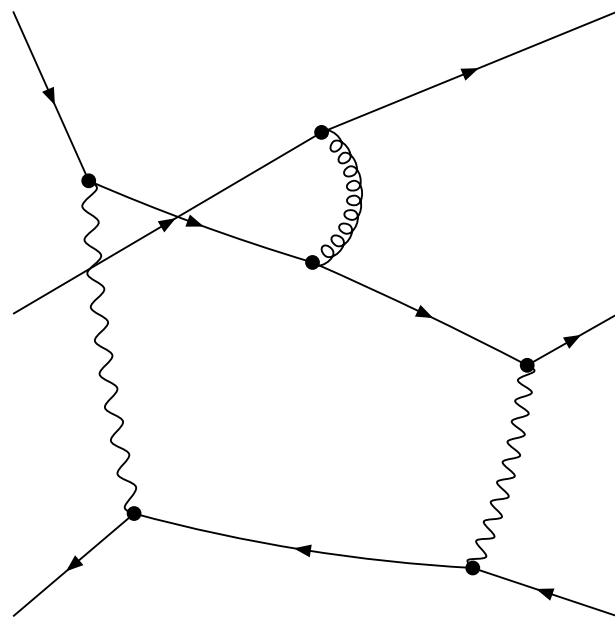
final

Denominator:

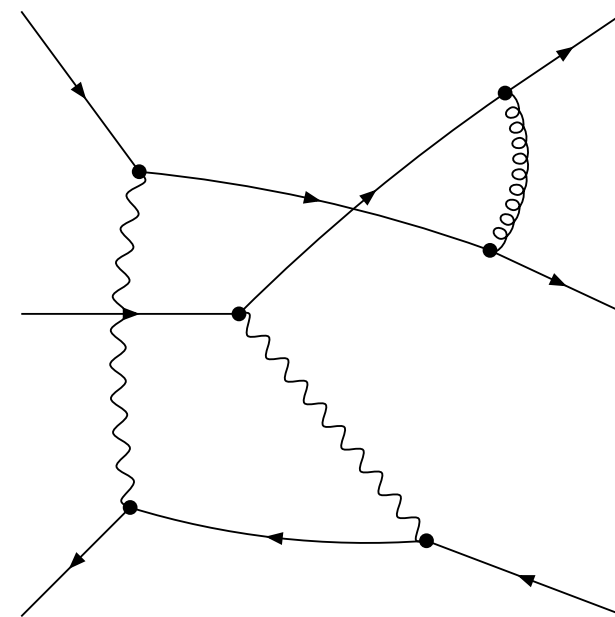
$\text{prop}[0,k[3]]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{prop}[0,p-q-k[3]]^{-1} \text{prop}[0,p-q-2 k[3]]^{-1}$



$-1+13+15$



$-1+15+17$



$-1+11+17$

