

## embedding 1 [2, 0, -2, -4] with multiplicity 1

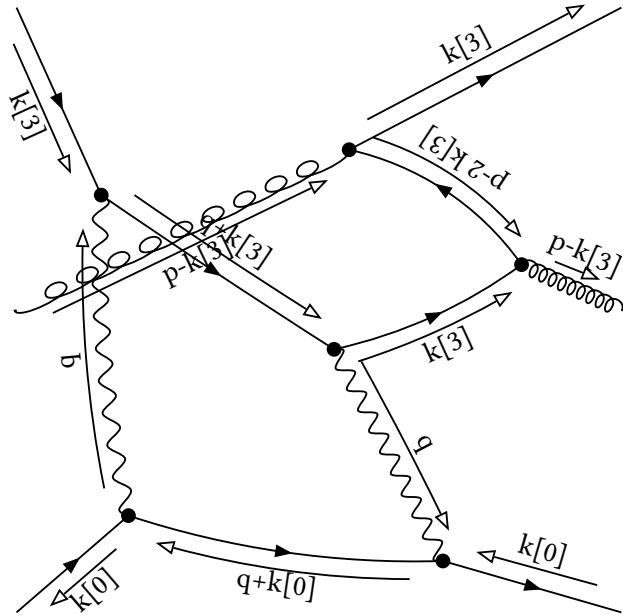
### initial

Denominator:

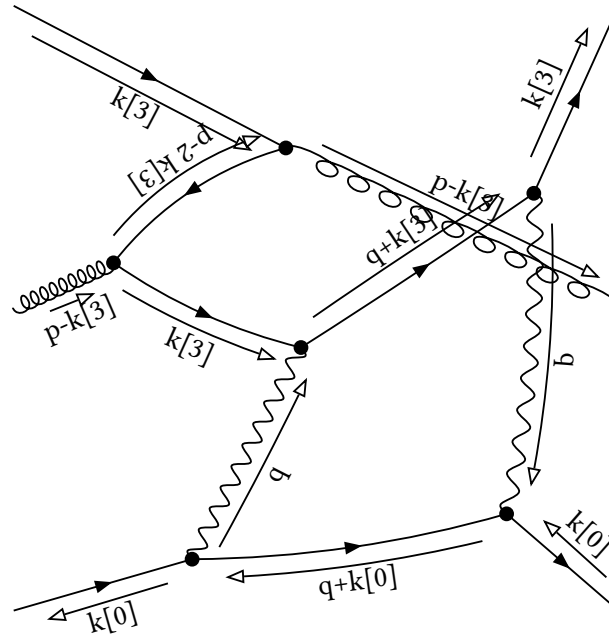
$$\text{prop}[0, k[3]]^{-2} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, p-k[3]]^{-1} \text{prop}[0, p-2 k[3]]^{-1}$$

Partial Fractioned Denominator:

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



+2-3+10-11+14-15

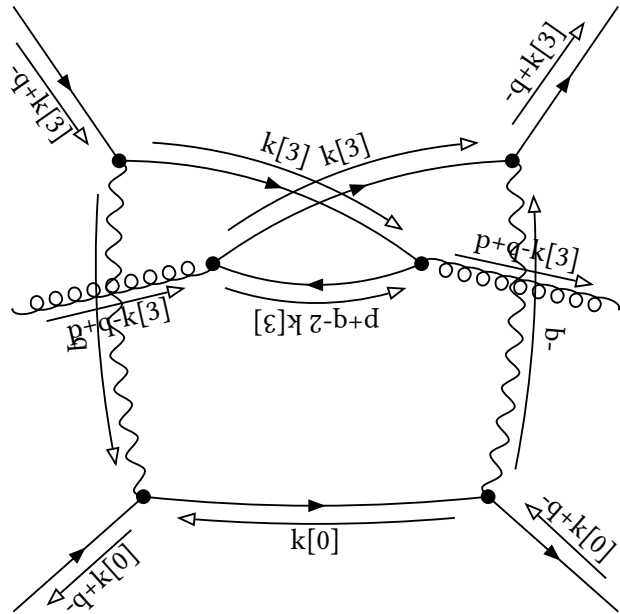


+2-3+10-11+12-13

**final**

Denominator:

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



$+0-1+10-11+16-17$

embedding 2 [2, 0, -2, -2] with multiplicity 1

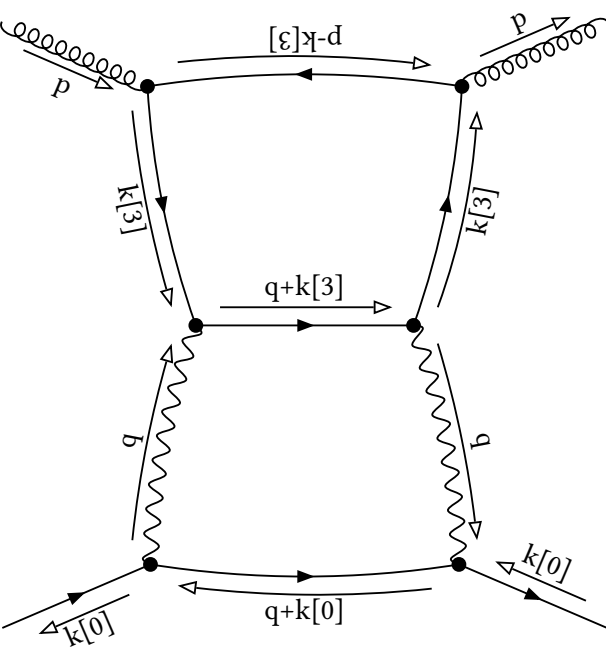
initial

Denominator:

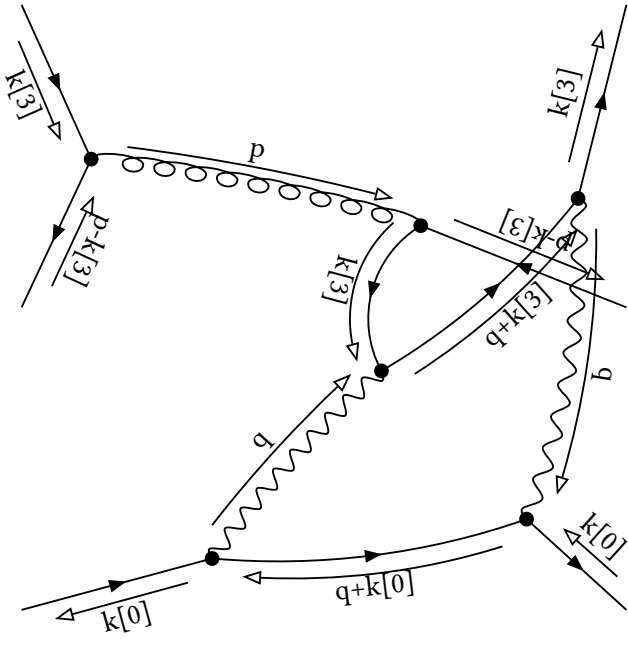
$\text{prop}[0,p]^{-1} \text{prop}[0,k[3]]^{-2} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1}$

Partial Fractioned Denominator:

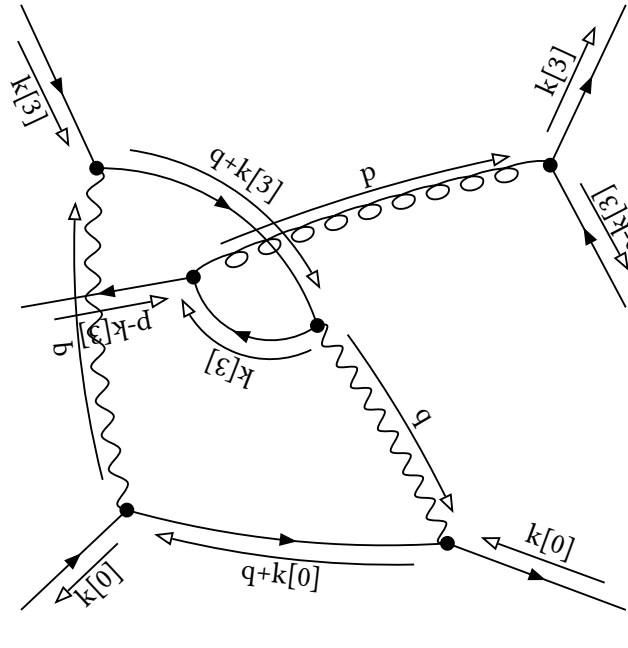
$\text{prop}[0,k[3]]^{-2} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,p-k[3]]^{-1} \text{dot}[p,p]^{-1}$



+2-3+10-11



+2-3-8+9+12-13

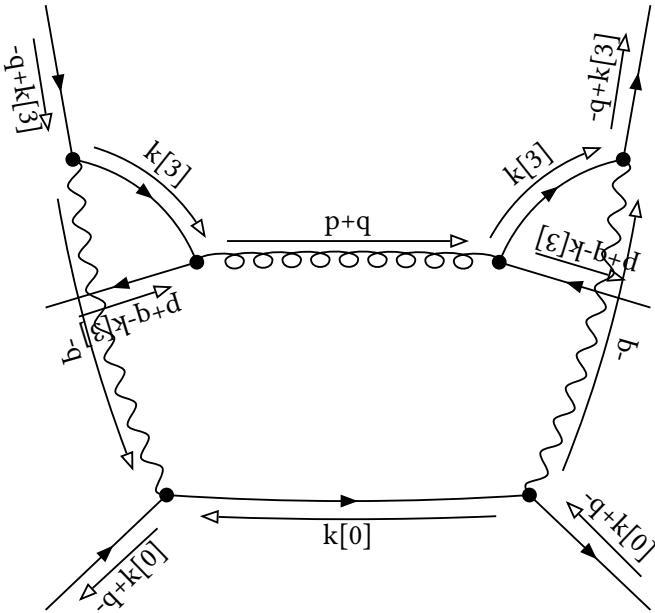


+2-3-8+9+14-15

**final**

Denominator:

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



$+0-1-8+9+16-17$

embedding 3 [2, 0, 0, -2] with multiplicity 1

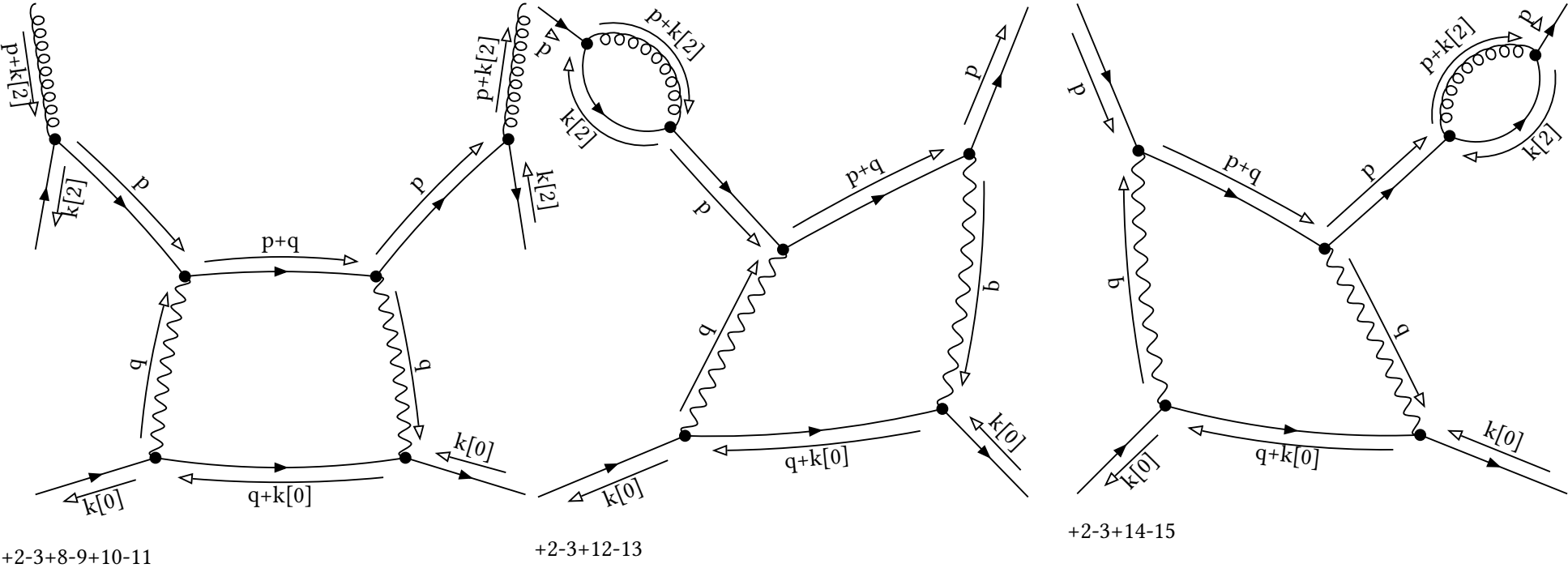
initial

Denominator:

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

Partial Fractioned Denominator:

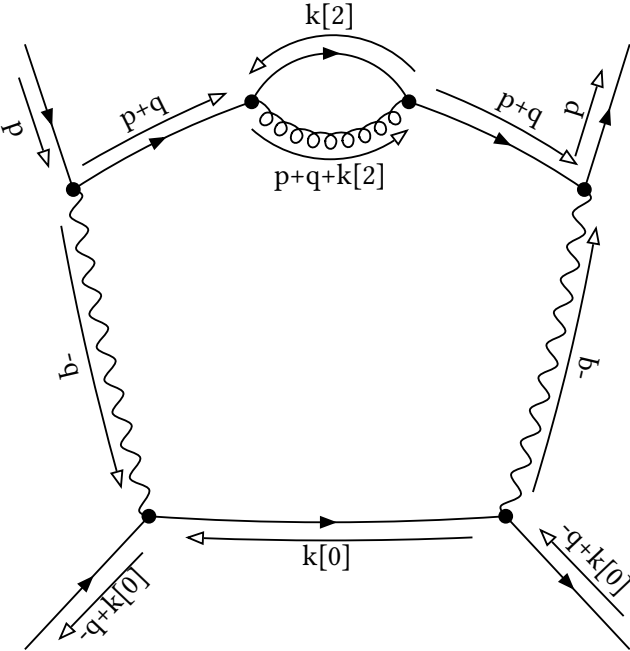
$(\text{dot}[p,p]+2 \text{dot}[p,q]+\text{dot}[q,q])^{-1} \text{prop}[0,k[2]]^{-1} \text{prop}[0,p+k[2]]^{-1} \text{dot}[p,p]^{-2}$



**final**

Denominator:

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



$+0-1+16-17$

## embedding 4 [2, 0, 2, -2] with multiplicity 1

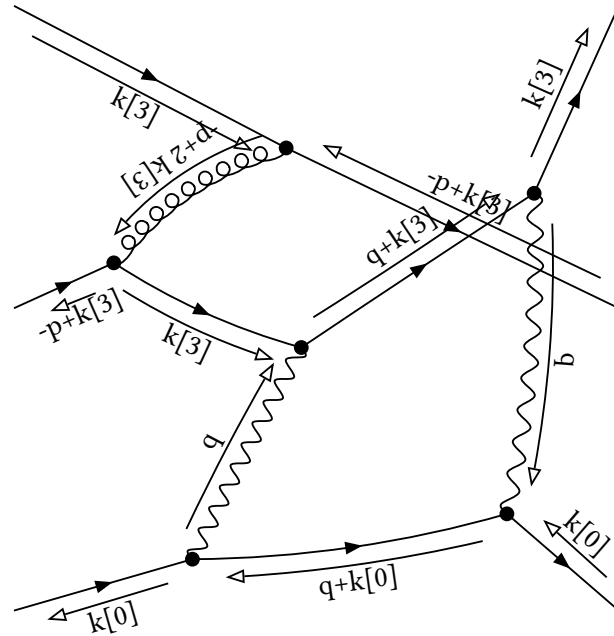
### initial

Denominator:

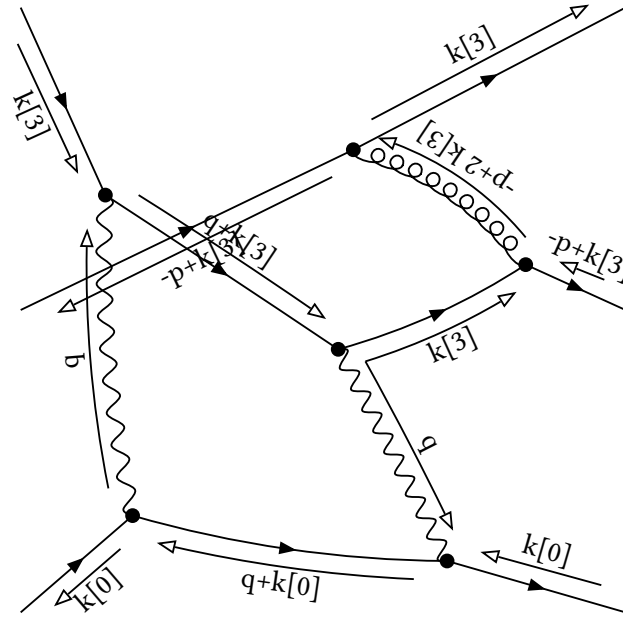
$$\text{prop}[0, k[3]]^{-2} \text{prop}[0, q+k[3]]^{-1} \text{prop}[0, -p+k[3]]^{-1} \text{prop}[0, -p+2 \ k[3]]^{-1}$$

Partial Fractioned Denominator:

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



+2-3+8-9+12-13

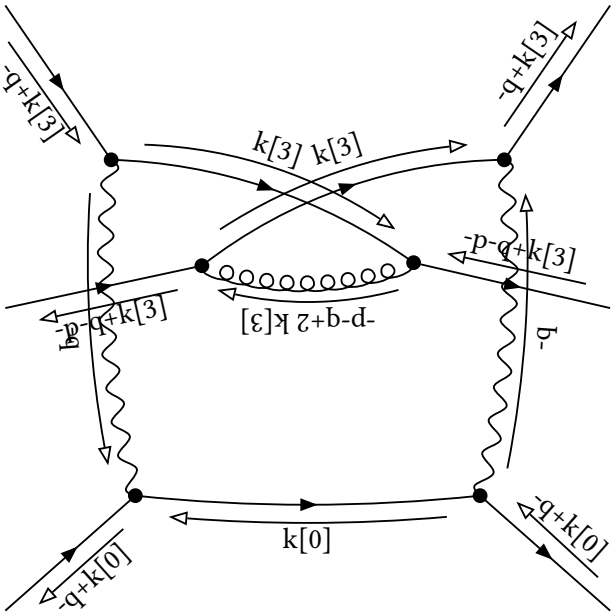


+2-3+8-9+14-15

**final**

Denominator:

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



$+0-1+8-9+16-17$



embedding 5 [2, 0, 2, 0] with multiplicity 1

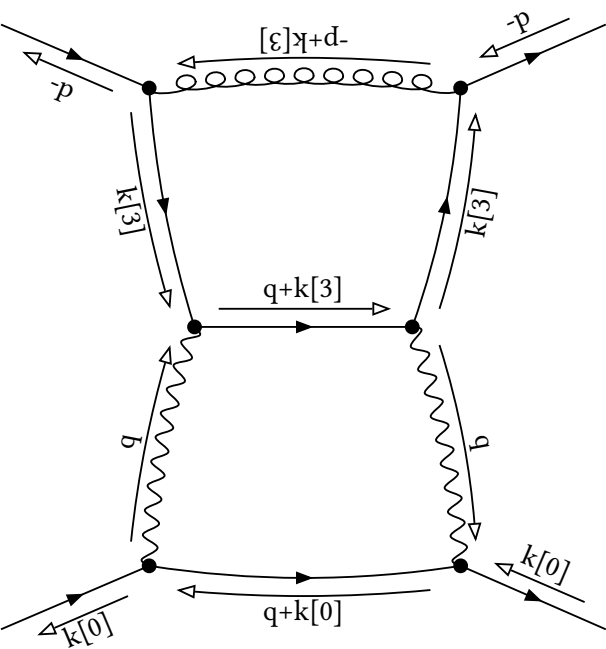
initial

Denominator:

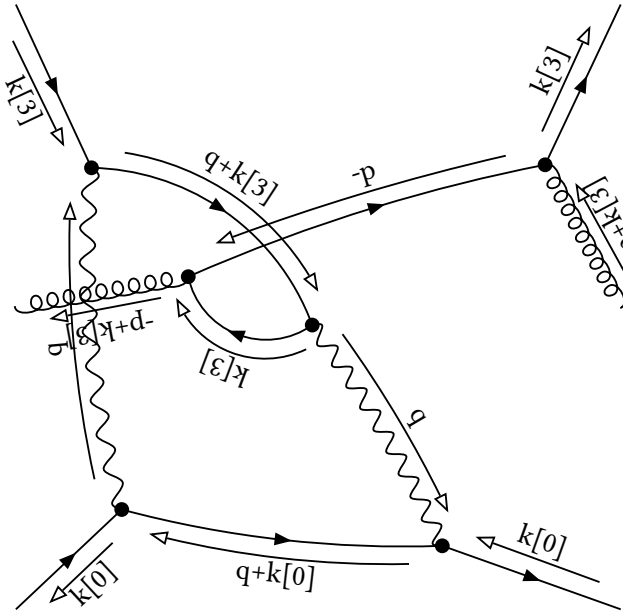
$\text{prop}[0,k[3]]^{-2} \text{prop}[0,-p]^{-1} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p+k[3]]^{-1}$

Partial Fractioned Denominator:

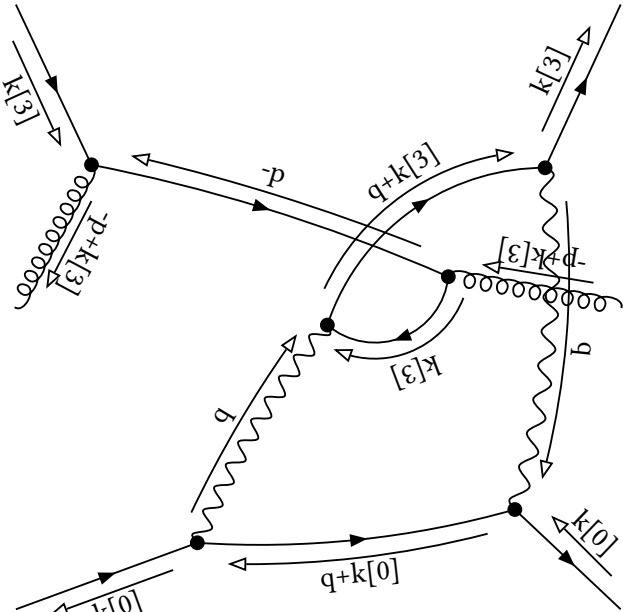
$\text{prop}[0,k[3]]^{-2} \text{prop}[0,q+k[3]]^{-1} \text{prop}[0,-p+k[3]]^{-1} \text{dot}[p,p]^{-1}$



+2-3+8-9



+2-3-10+11+14-15

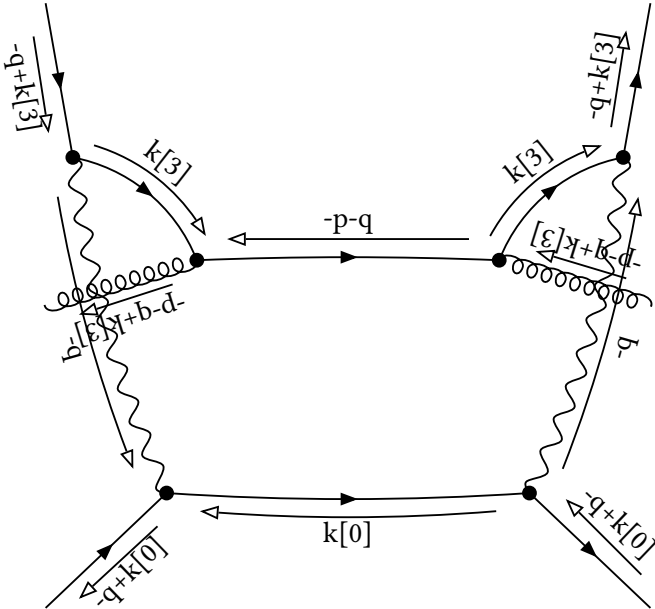


+2-3-10+11+12-13

**final**

Denominator:

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



$+0-1-10+11+16-17$

**embedding 6 [2, 2, -2, 0] with multiplicity 1**

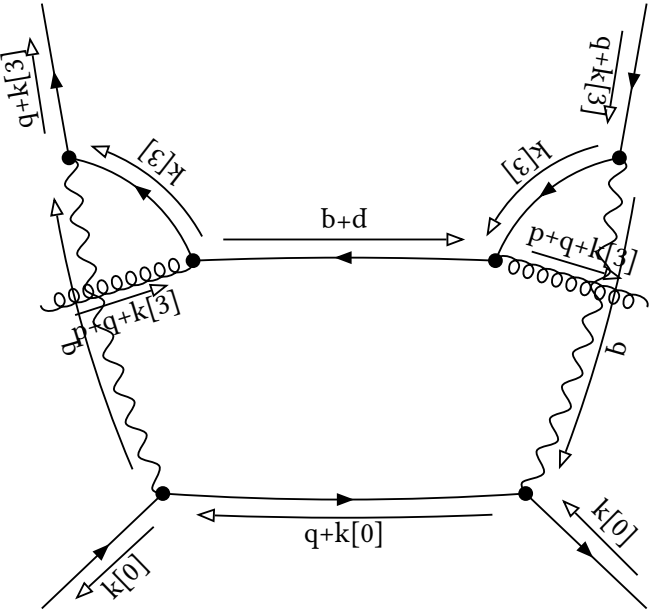
**initial**

Denominator:

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

Partial Fractioned Denominator:

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

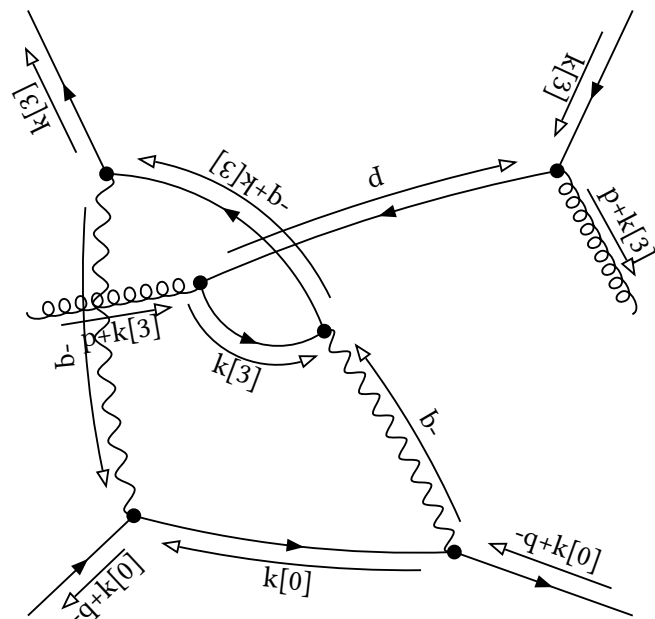


$+2-3+10-11-16+17$

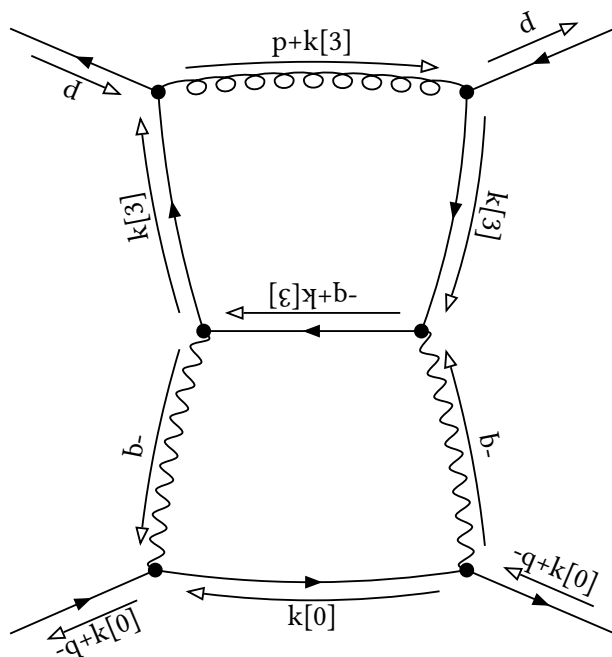
**final**

Denominator:

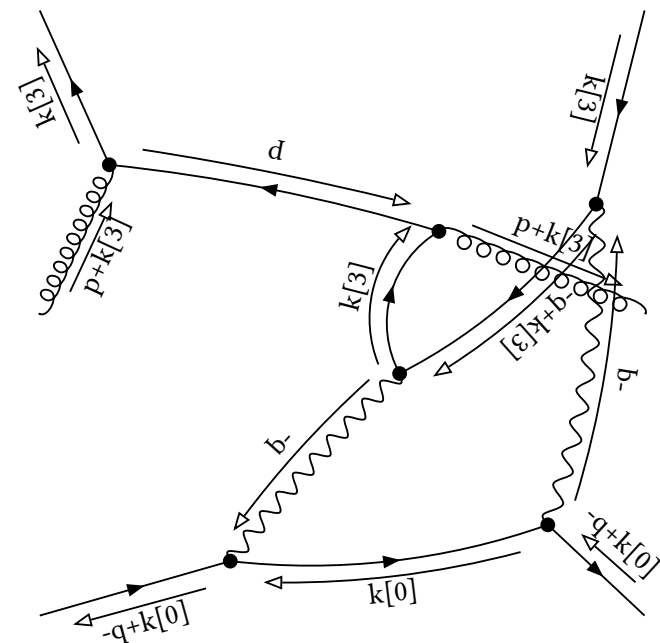
$$\text{prop}[0,p]^{-1} \text{prop}[0,k[3]]^{-2} \text{prop}[0,p+k[3]]^{-1} \text{prop}[0,-q+k[3]]^{-1}$$



+0-1+10-11-12+13



+0-1-8+9



+0-1+10-11-14+15

## embedding 7 [2, 2, -2, 2] with multiplicity 1

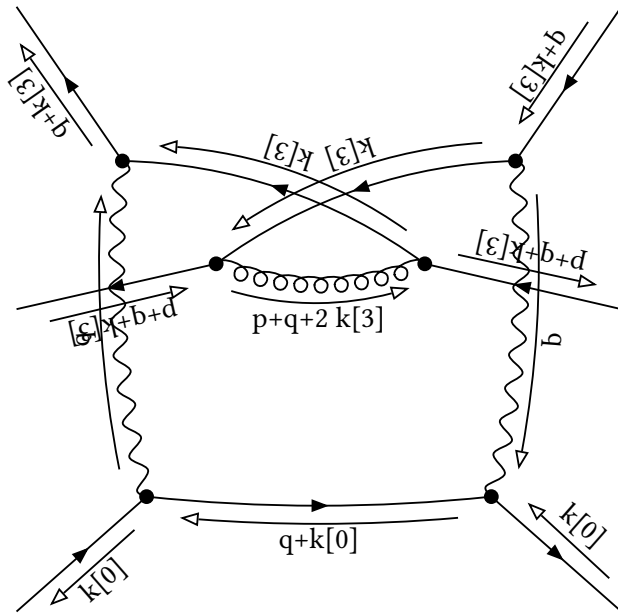
### initial

Denominator:

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

Partial Fractioned Denominator:

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

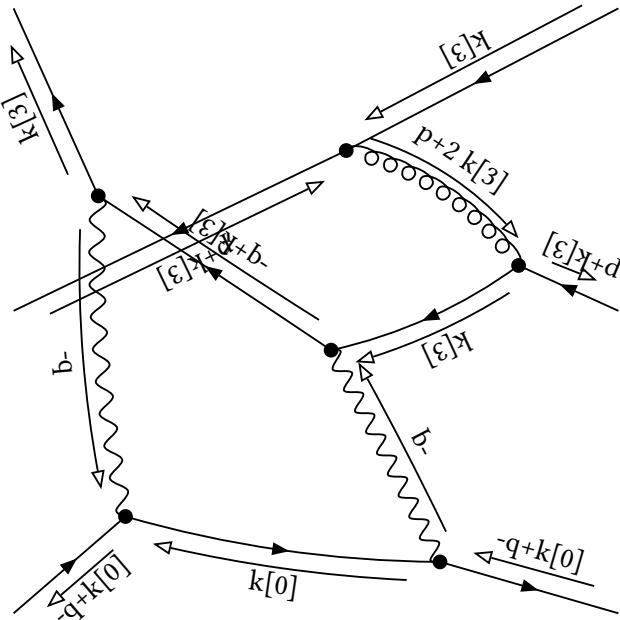


$$+2-3-8+9-16+17$$

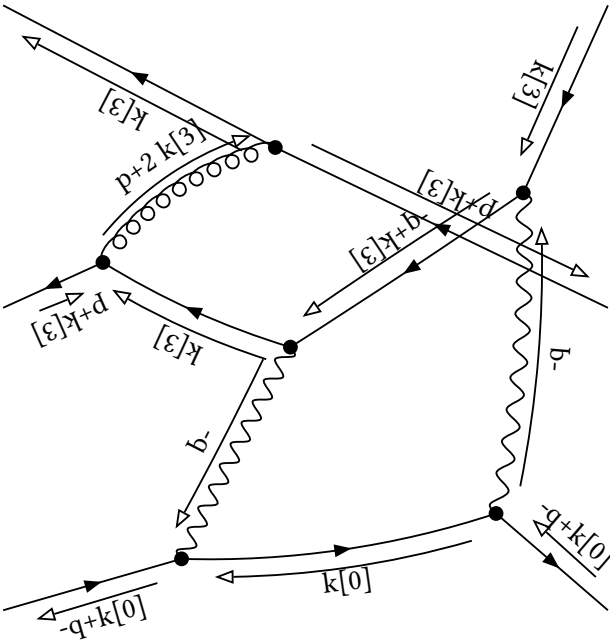
**final**

Denominator:

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



$+0-1-8+9-12+13$



$+0-1-8+9-14+15$

**embedding 8 [2, 2, 0, 2] with multiplicity 1**

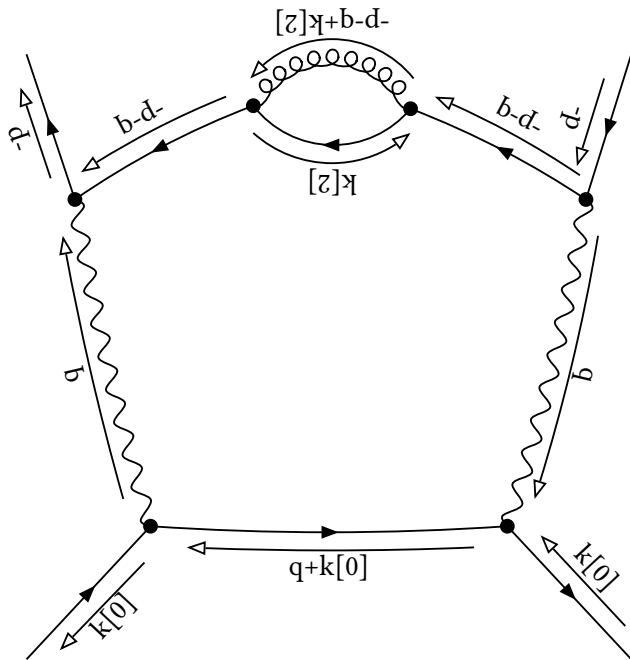
**initial**

Denominator:

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

Partial Fractioned Denominator:

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

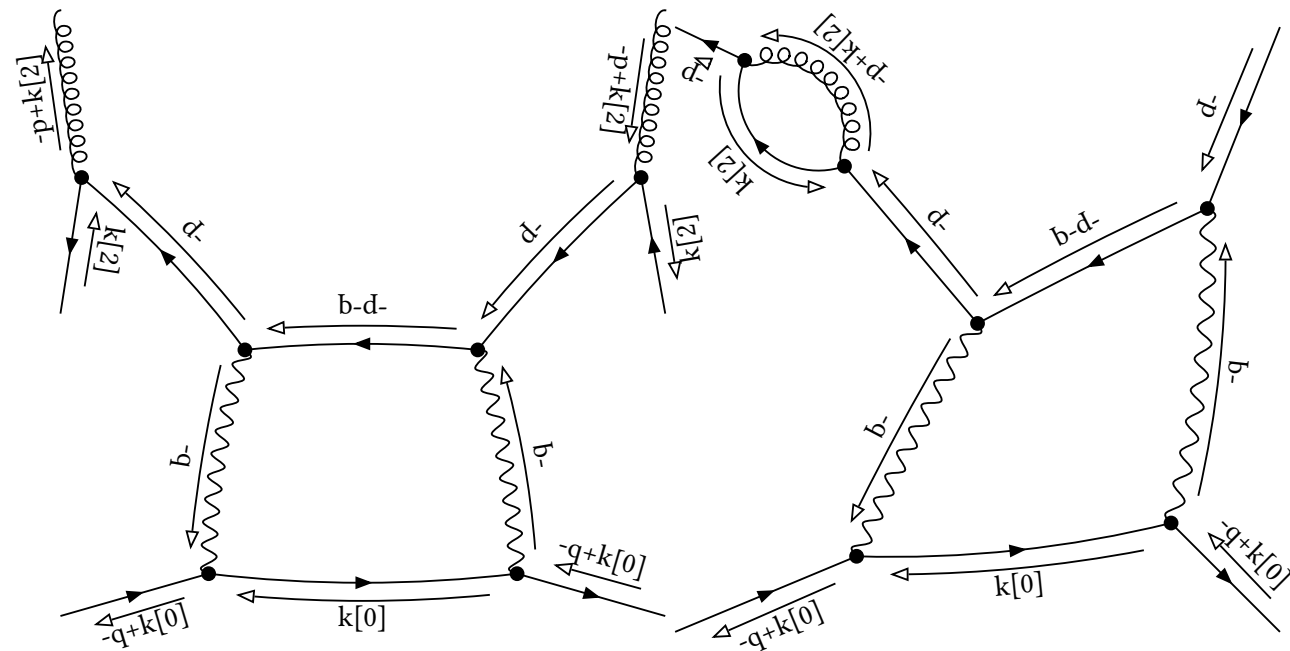


+2-3-16+17

**final**

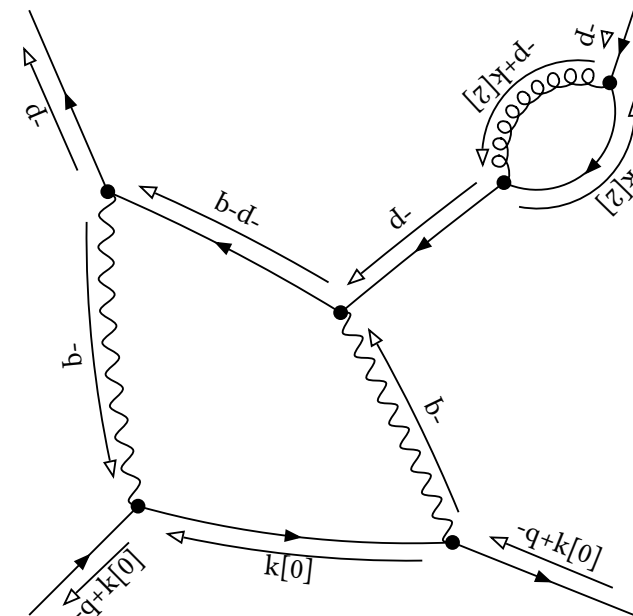
Denominator:

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



$$+0-1-8+9-10+11$$

$$+0-1-14+15$$



$$+0-1-12+13$$



**embedding 9 [2, 2, 2, 2] with multiplicity 1**

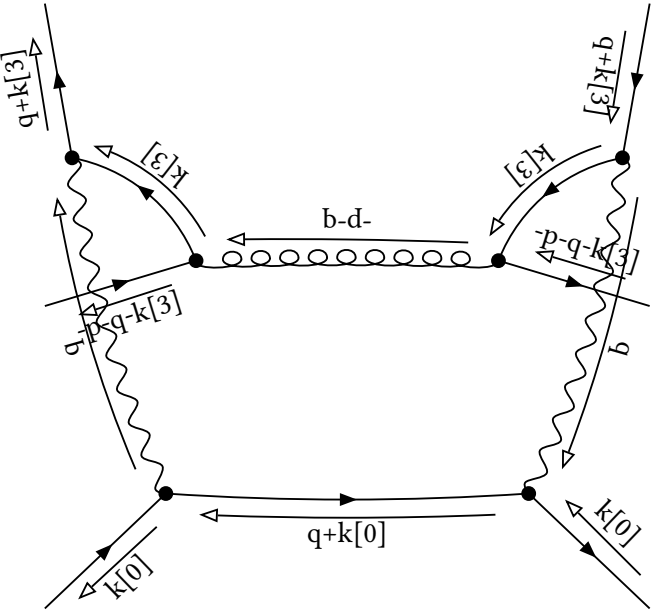
**initial**

Denominator:

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

Partial Fractioned Denominator:

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

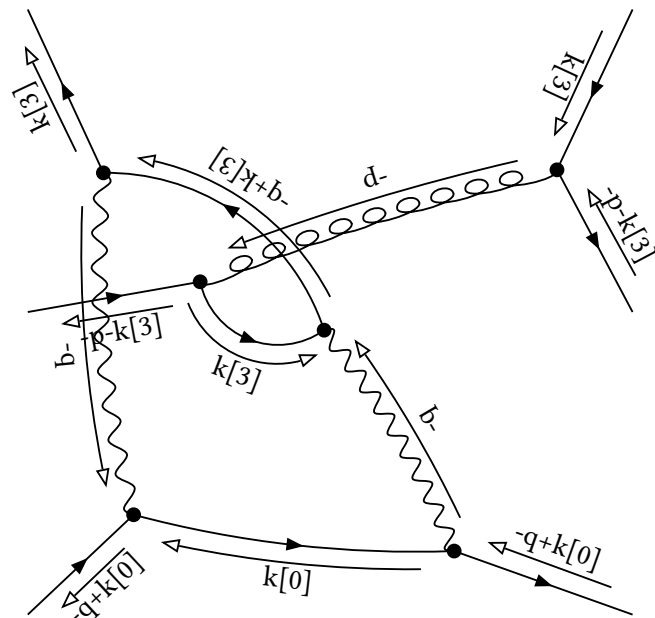


$+2-3+8-9-16+17$

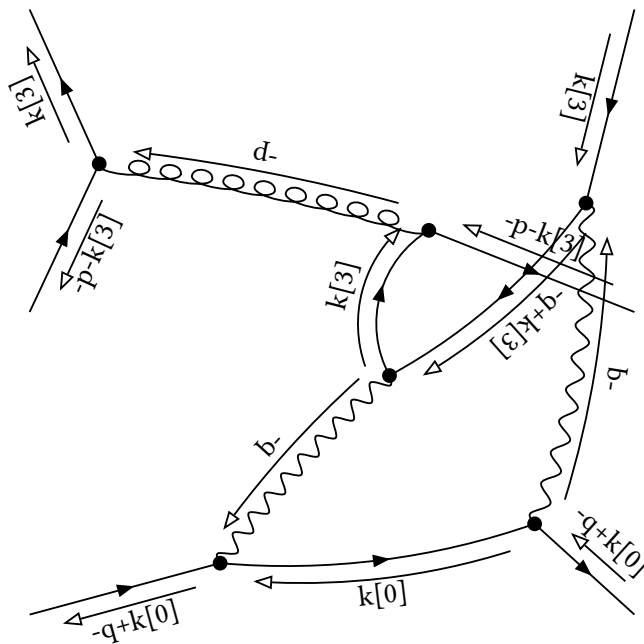
**final**

Denominator:

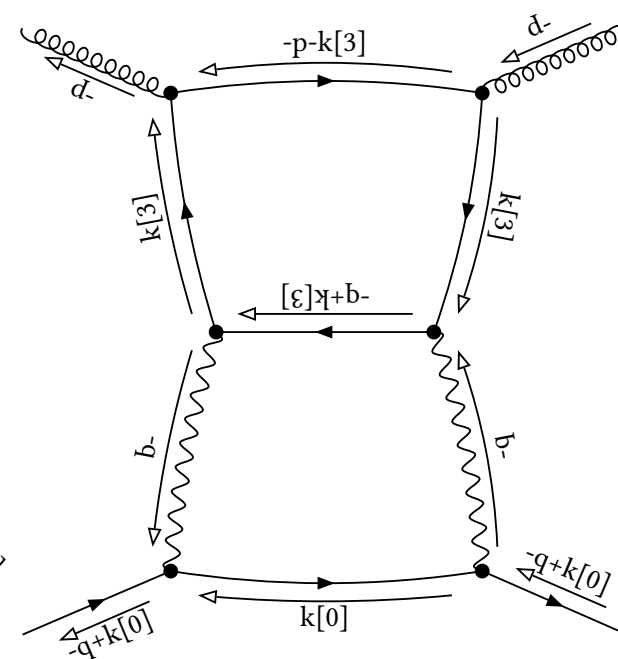
$$\text{prop}[0, k[3]]^{-2} \text{prop}[0, -p]^{-1} \text{prop}[0, -q+k[3]]^{-1} \text{prop}[0, -p-k[3]]^{-1}$$



+0-1+8-9-12+13



+0-1+8-9-14+15



+0-1-10+11

## embedding 10 [2, 2, 2, 4] with multiplicity 1

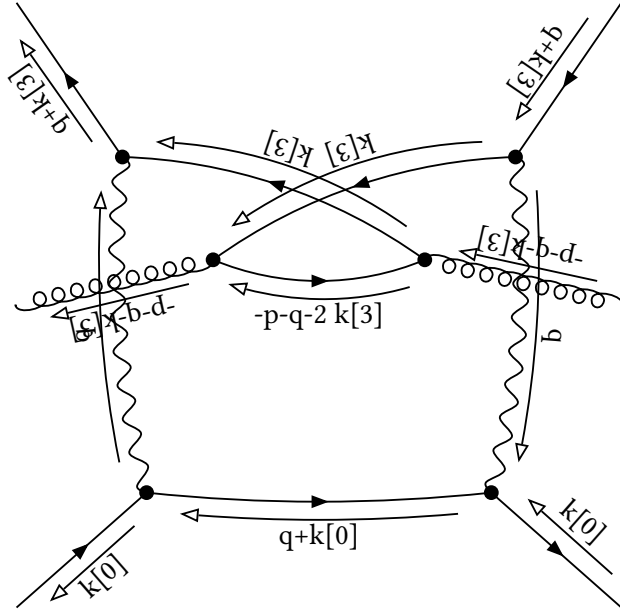
### initial

Denominator:

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

Partial Fractioned Denominator:

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

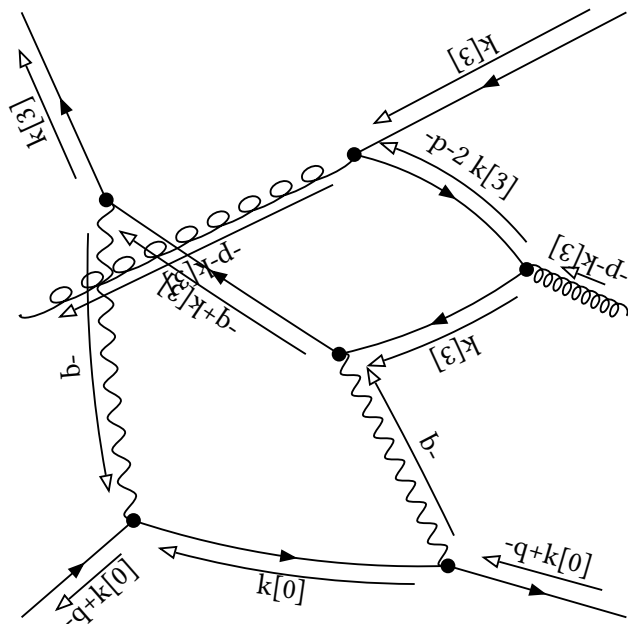


$$+2-3-10+11-16+17$$

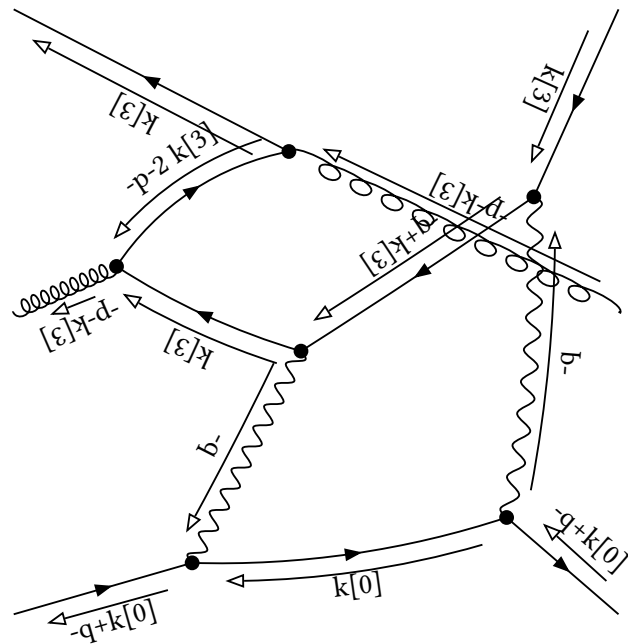
**final**

Denominator:

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



$+0-1-10+11-12+13$



$+0-1-10+11-14+15$

