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

initial

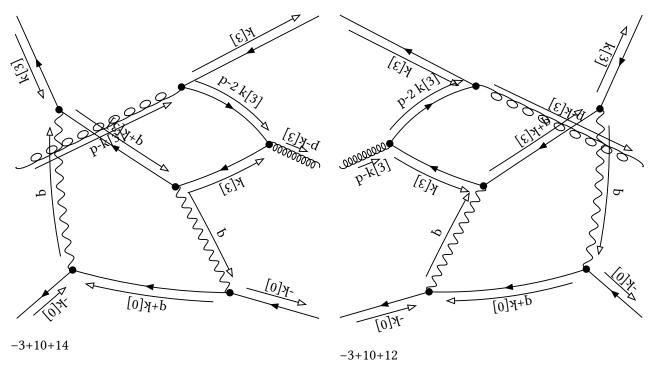
Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,p-k[3]]^-1 prop[0,p-2 k[3]]^-1

Partial Fractioned Denominator:

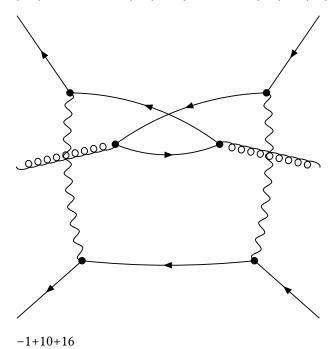
```
-prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,p-k[3]]^-1 dot[p,p]^-1
```

- $+2\ \mathsf{prop}[0,k[3]]^{-2}\ \mathsf{prop}[0,q+k[3]]^{-1}\ \mathsf{prop}[0,p-2\ k[3]]^{-1}\ \mathsf{dot}[p,p]^{-1}$
- -2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p-k[3]]^-1 dot[p,p]^-2
- +4 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p-2 k[3]]^-1 dot[p,p]^-2
- +4 prop[0,q+k[3]]^-1 prop[0,p-k[3]]^-1 prop[0,p-2 k[3]]^-1 dot[p,p]^-2



Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,p-q-k[3]]^-1 prop[0,p-q-2 k[3]]^-1



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

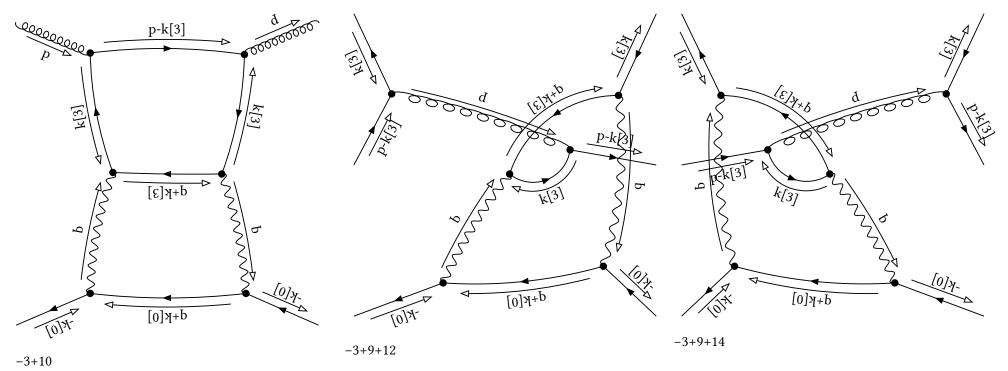
initial

Denominator:

prop[0,p]^-1 prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,p-k[3]]^-1

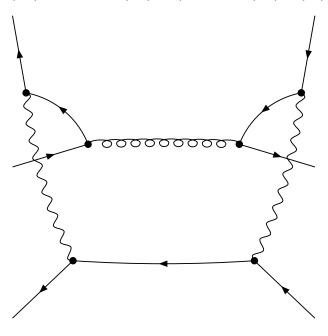
Partial Fractioned Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,p-k[3]]^-1 dot[p,p]^-1



Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,p-q]^-1 prop[0,p-q-k[3]]^-1



-1+9+16

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

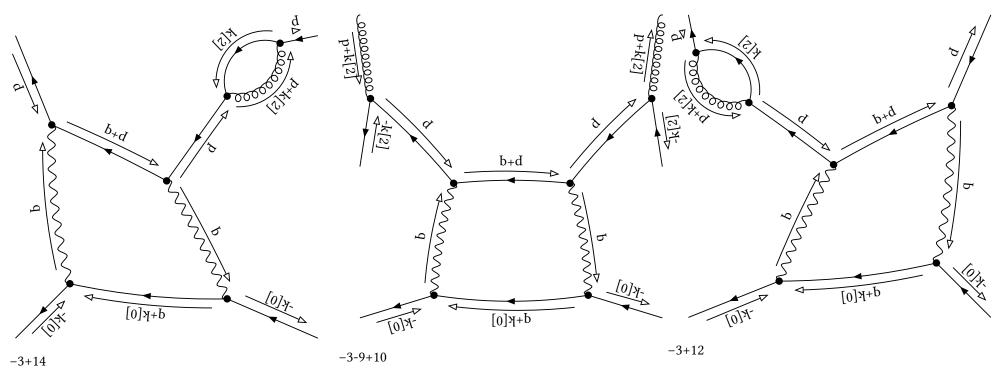
initial

Denominator:

prop[0,p]^-2 prop[0,k[2]]^-1 prop[0,p+q]^-1 prop[0,p+k[2]]^-1

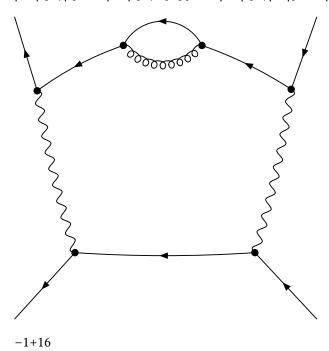
Partial Fractioned Denominator:

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



Denominator:

prop[0,p]^-1 prop[0,k[2]]^-1 prop[0,p-q]^-2 prop[0,p-q+k[2]]^-1



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

initial

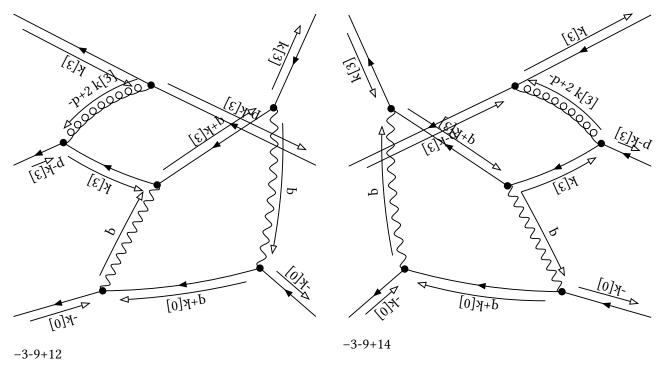
Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p+k[3]]^-1 prop[0,-p+2 k[3]]^-1

Partial Fractioned Denominator:

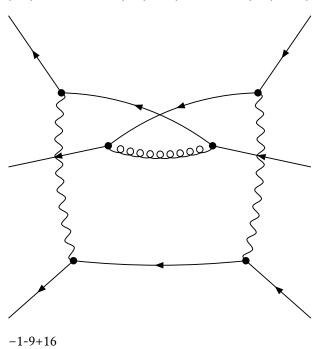
```
-prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p+k[3]]^-1 dot[p,p]^-1
```

- +2 $prop[0,k[3]]^-2$ $prop[0,q+k[3]]^-1$ prop[0,-p+2 $k[3]]^-1$ $dot[p,p]^-1$
- -2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,-p+k[3]]^-1 dot[p,p]^-2
- +4 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,-p+2 k[3]]^-1 dot[p,p]^-2
- +4 prop[0,q+k[3]]^-1 prop[0,-p+k[3]]^-1 prop[0,-p+2 k[3]]^-1 dot[p,p]^-2



Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p+q+k[3]]^-1 prop[0,-p+q+2 k[3]]^-1



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

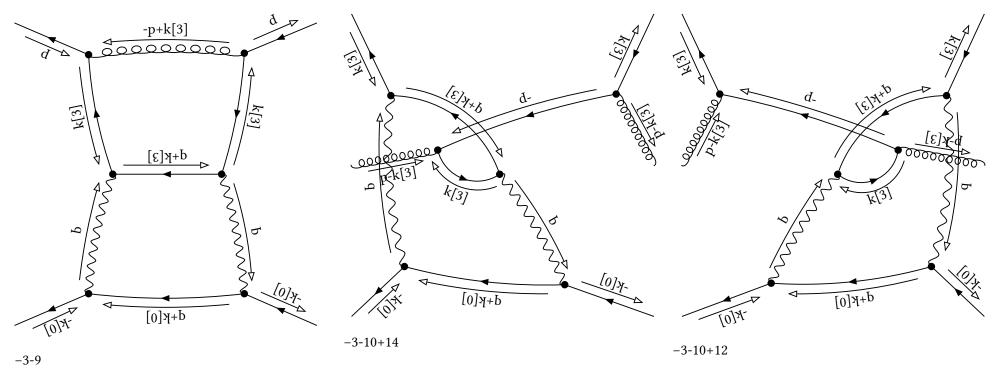
initial

Denominator:

prop[0,k[3]]^-2 prop[0,-p]^-1 prop[0,q+k[3]]^-1 prop[0,-p+k[3]]^-1

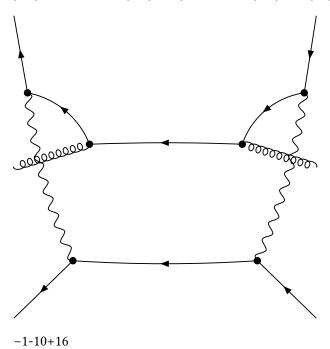
Partial Fractioned Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p+k[3]]^-1 dot[p,p]^-1



Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p+q]^-1 prop[0,-p+q+k[3]]^-1



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

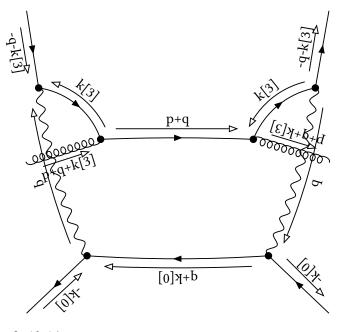
initial

Denominator:

prop[0,k[3]]^-2 prop[0,p+q]^-1 prop[0,q+k[3]]^-1 prop[0,p+q+k[3]]^-1

Partial Fractioned Denominator:

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

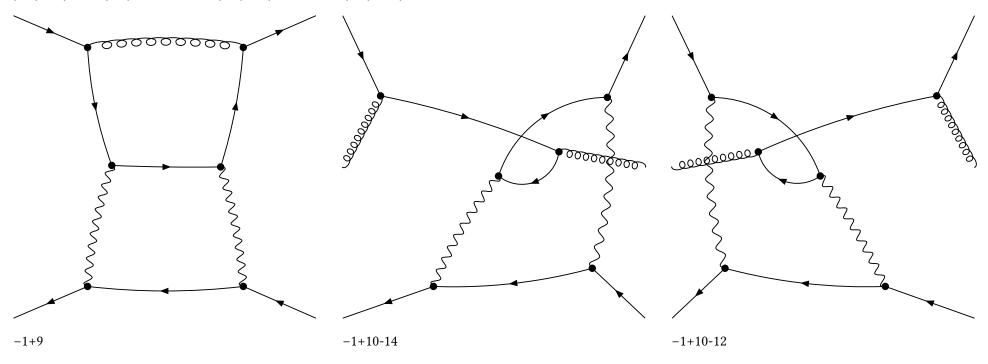


-3+10-16

final

Denominator:

prop[0,p]^-1 prop[0,k[3]]^-2 prop[0,p+k[3]]^-1 prop[0,q+k[3]]^-1



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

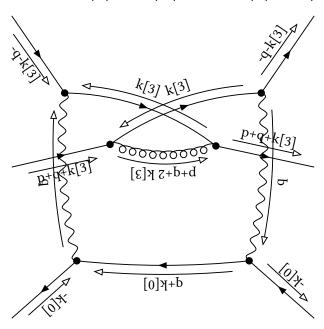
initial

Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,p+q+k[3]]^-1 prop[0,p+q+2 k[3]]^-1

Partial Fractioned Denominator:

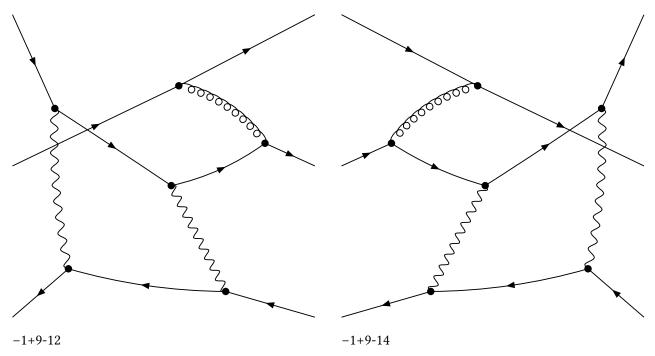
-1/2 (1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p+q+k[3]]^-1 +(1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p+q+2 k[3]]^-1 +(1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-2 prop[0,q+k[3]]^-1 prop[0,p+q+k[3]]^-1 prop[0,p+q+2 k[3]]^-1 -1/2 (1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-1 prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,p+q+2 k[3]]^-1 +(1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-1 prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,p+q+2 k[3]]^-1



-3+9-16

Denominator:

prop[0,k[3]]^-2 prop[0,p+k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p+2 k[3]]^-1



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

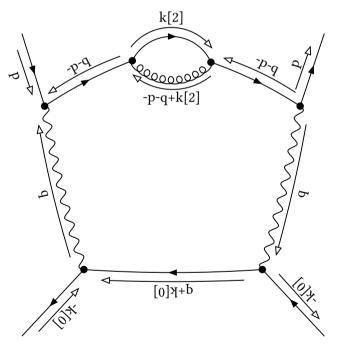
initial

Denominator:

prop[0,k[2]]^-1 prop[0,-p]^-1 prop[0,-p-q]^-2 prop[0,-p-q+k[2]]^-1

Partial Fractioned Denominator:

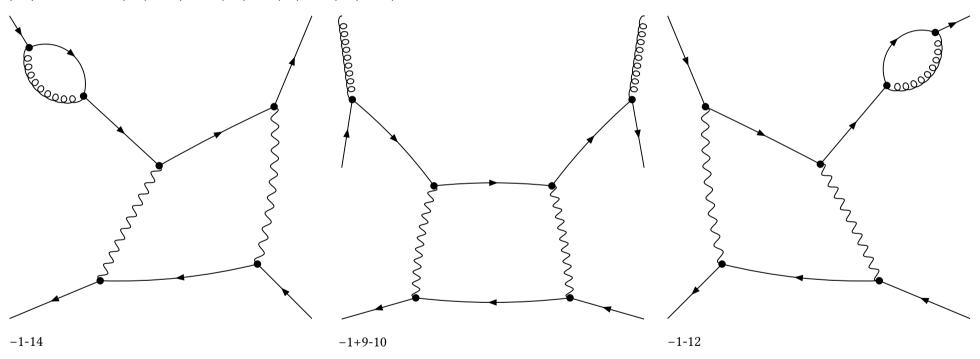
 $(\mathsf{dot}[\mathsf{p},\mathsf{p}] + 2 \ \mathsf{dot}[\mathsf{p},\mathsf{q}] + \mathsf{dot}[\mathsf{q},\mathsf{q}])^{-2} \ \mathsf{prop}[\mathsf{0},\mathsf{k}[\mathsf{2}]]^{-1} \ \mathsf{prop}[\mathsf{0},\mathsf{-p}\mathsf{-q}\mathsf{+k}[\mathsf{2}]]^{-1} \ \mathsf{dot}[\mathsf{p},\mathsf{p}]^{-1}$



final

Denominator:

prop[0,k[2]]^-1 prop[0,-p]^-2 prop[0,-p+q]^-1 prop[0,-p+k[2]]^-1



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

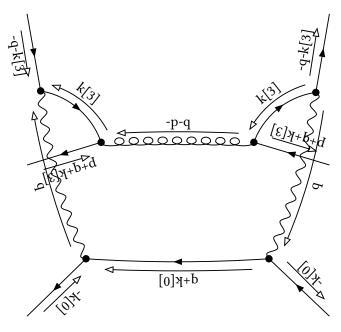
initial

Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p-q]^-1 prop[0,-p-q-k[3]]^-1

Partial Fractioned Denominator:

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

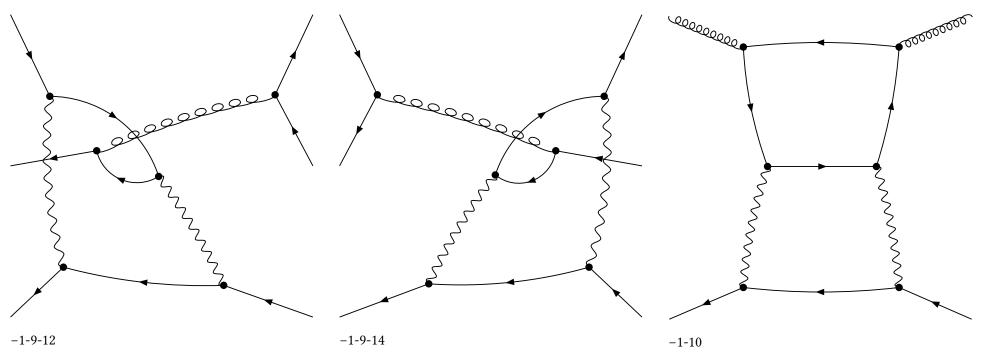


-3-9-16

final

Denominator:

prop[0,k[3]]^-2 prop[0,-p]^-1 prop[0,q+k[3]]^-1 prop[0,-p-k[3]]^-1



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

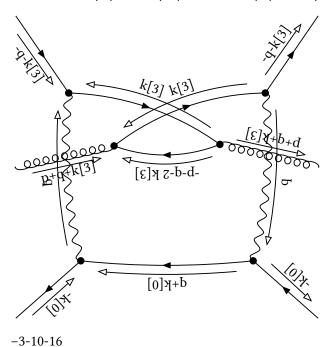
initial

Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p-q-k[3]]^-1 prop[0,-p-q-2 k[3]]^-1

Partial Fractioned Denominator:

```
-1/2 (1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,-p-q-k[3]]^-1 +(1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,-p-q-2 k[3]]^-1 +(1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-2 prop[0,q+k[3]]^-1 prop[0,-p-q-k[3]]^-1 prop[0,-p-q-2 k[3]]^-1 -1/2 (1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-1 prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p-q-k[3]]^-1 +(1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-1 prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p-q-2 k[3]]^-1
```



Denominator:

prop[0,k[3]]^-2 prop[0,q+k[3]]^-1 prop[0,-p-k[3]]^-1 prop[0,-p-2 k[3]]^-1

