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

#### initial

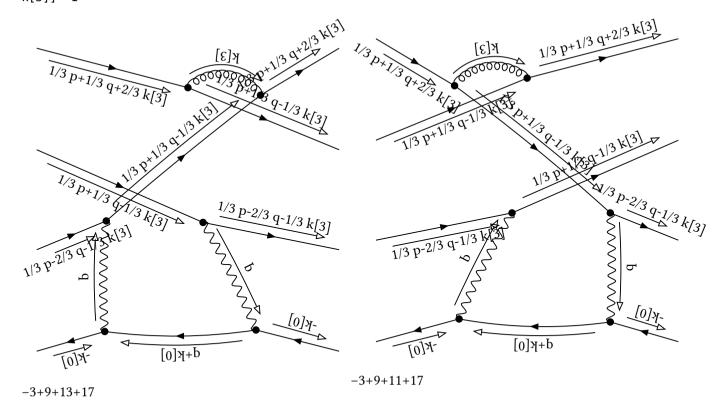
Denominator:

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

Partial Fractioned Denominator:

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

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



## embedding 2 [1, -2, -2, -1]

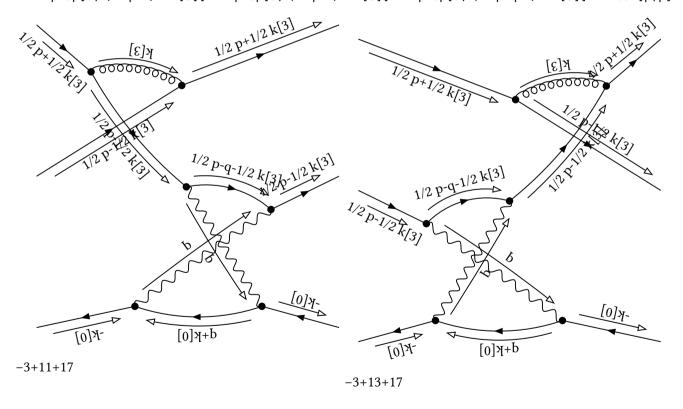
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



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

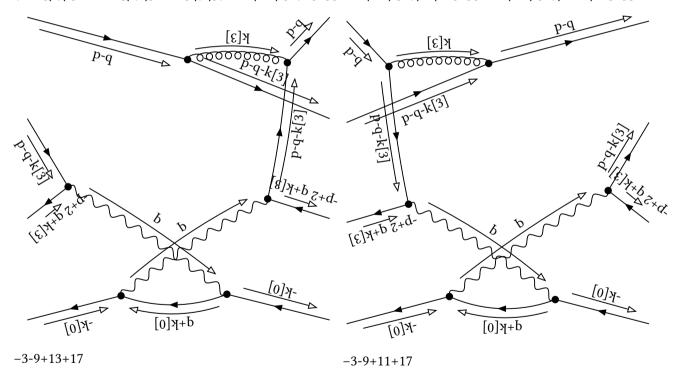
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



# embedding 4 [1, -1, -3, -1]

#### initial

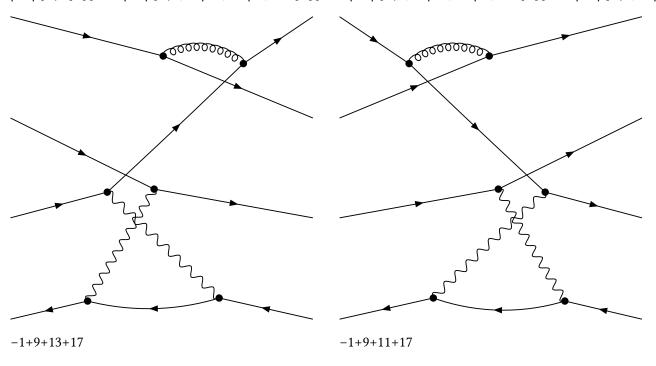
Denominator:

Partial Fractioned Denominator:

final

Denominator:

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



# embedding 5 [1, -1, -2, -2]

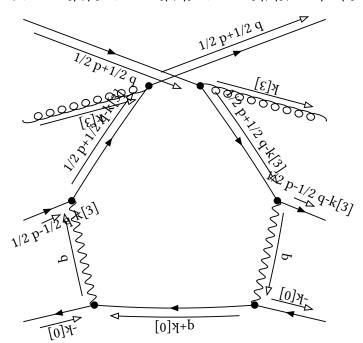
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



-3+9+14+17

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

#### initial

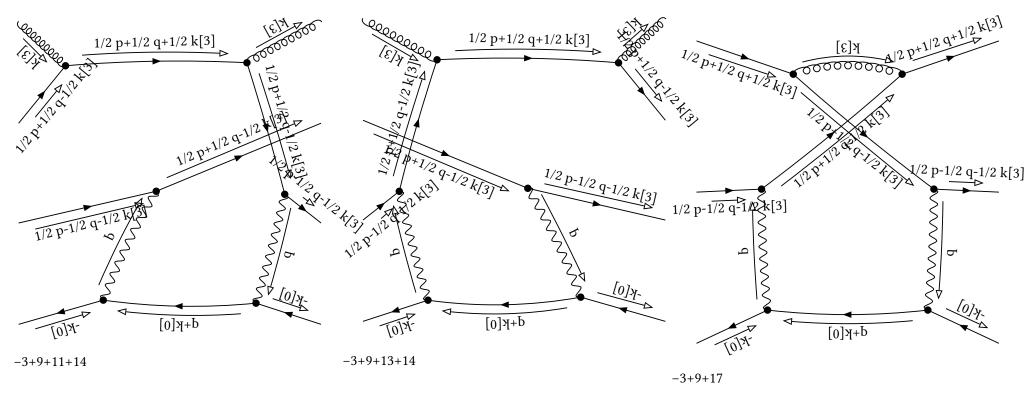
#### Denominator:

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

#### Partial Fractioned Denominator:

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

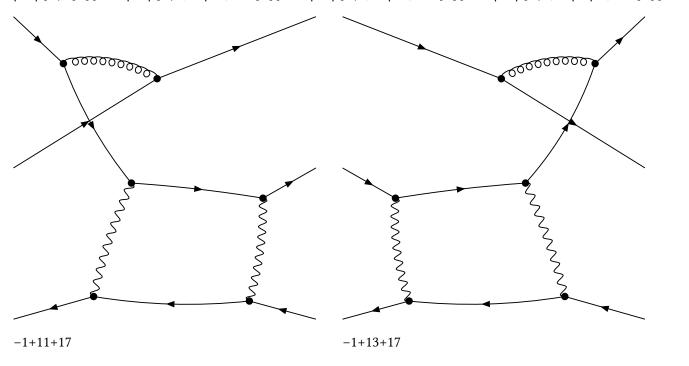
- $+(1/2 \text{ dot}[p,p]+\text{dot}[p,q]+1/2 \text{ dot}[q,q])^{-2} \text{ prop}[0,k[3]]^{-1} \text{ prop}[0,1/2 p+1/2 q-1/2 k[3]]^{-1} \text{ prop}[0,1/2 p-1/2 q-1/2 k[3]]^{-1}$
- -1/2 (1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-2 prop[0,1/2 p+1/2 q+1/2 k[3]]^-1 prop[0,1/2 p+1/2 q-1/2 k[3]]^-1 prop[0,1/2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



final

Denominator:

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



# embedding 7 [1, -1, -2, 0]

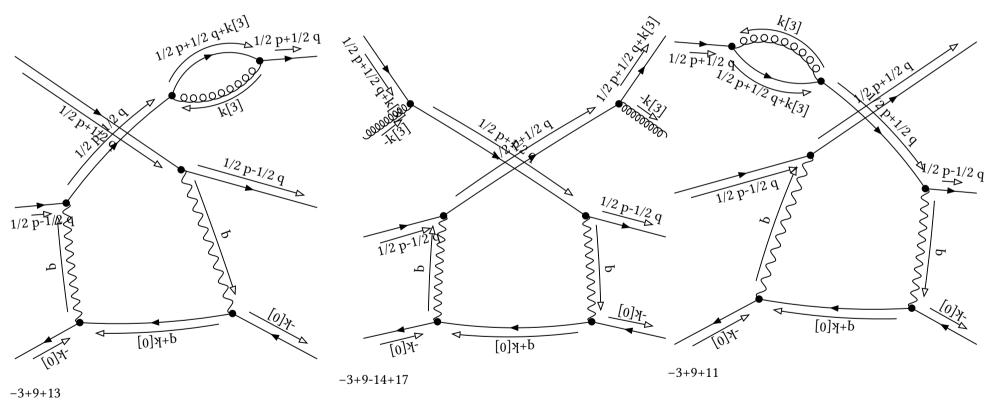
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



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

#### initial

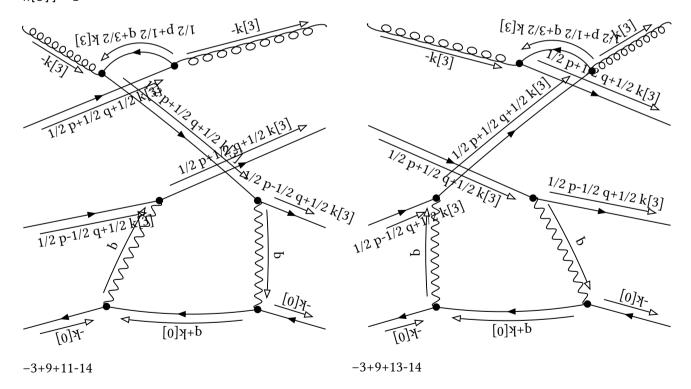
Denominator:

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

Partial Fractioned Denominator:

-3 (-1/2 dot[p,p]-dot[p,q]-1/2 dot[q,q])^-2 prop[0,k[3]]^-1 prop[0,1/2 p+1/2 q+1/2 k[3]]^-1 prop[0,1/2 p-1/2 q+1/2 k[3]]^-1 +9 (-1/2 dot[p,p]-dot[p,q]-1/2 dot[q,q])^-2 prop[0,k[3]]^-1 prop[0,1/2 p+1/2 q+3/2 k[3]]^-1 prop[0,1/2 p-1/2 q+1/2 k[3]]^-1 +9/2 (-1/2 dot[p,p]-dot[p,q]-1/2 dot[q,q])^-2 prop[0,1/2 p+1/2 q+1/2 k[3]]^-1 prop[0,1/2 p+1/2 q+3/2 k[3]]^-1 prop[0,1/2 p-1/2 q+1/2 k[3]]^-1

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



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

#### initial

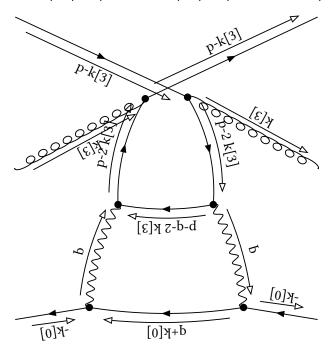
Denominator:

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

Partial Fractioned Denominator:

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

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



-3+14+17

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

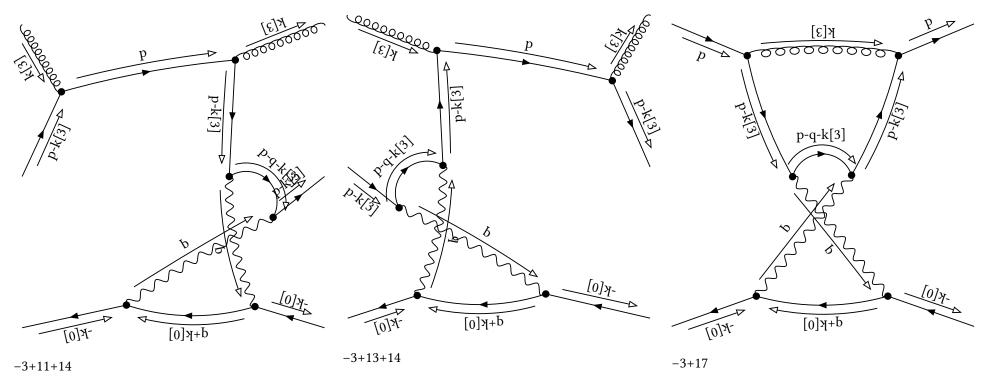
#### initial

Denominator:

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

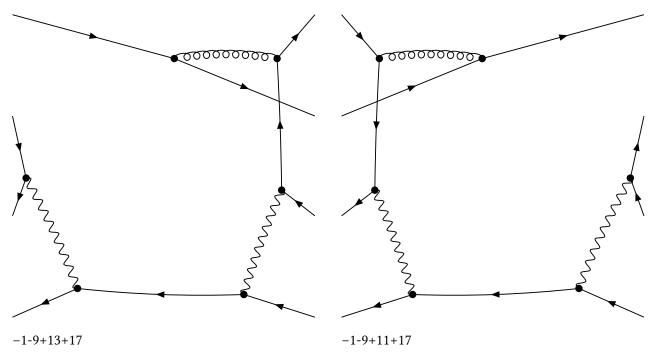
Partial Fractioned Denominator:

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



Denominator:

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



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

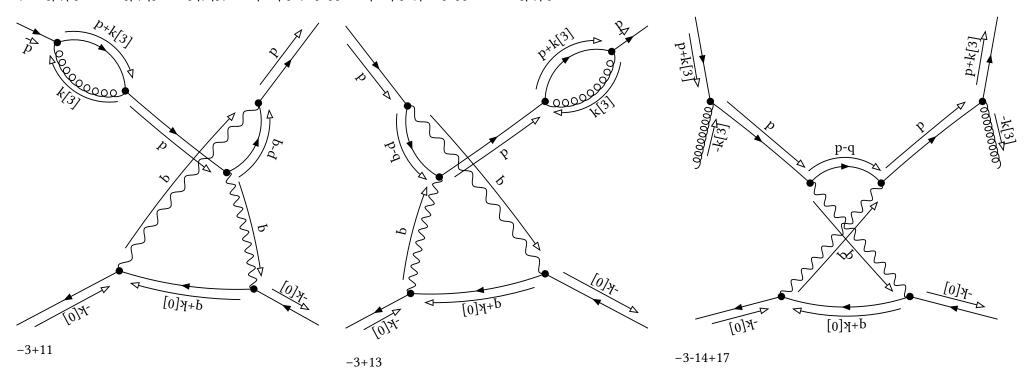
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



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

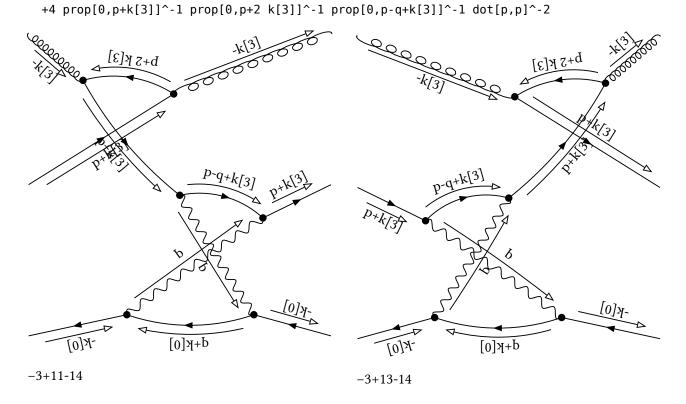
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



# embedding 13 [1, -1, 0, -2]

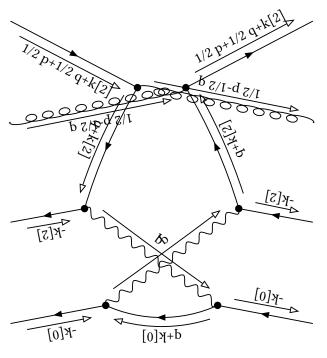
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



-3-9+14+17

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

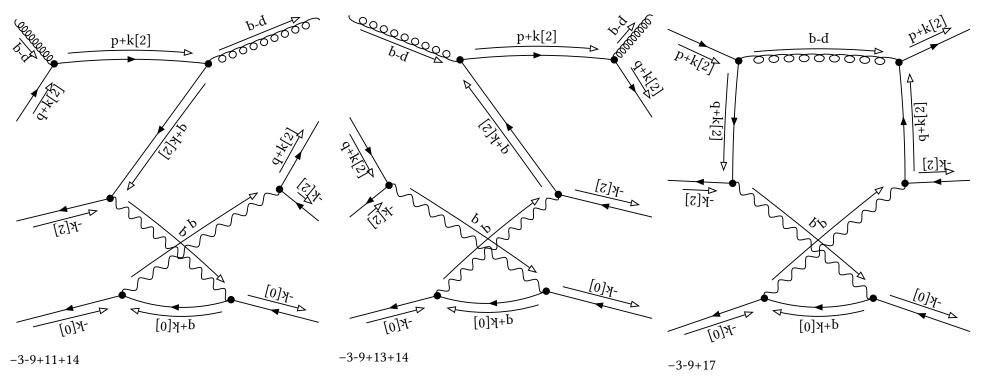
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



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

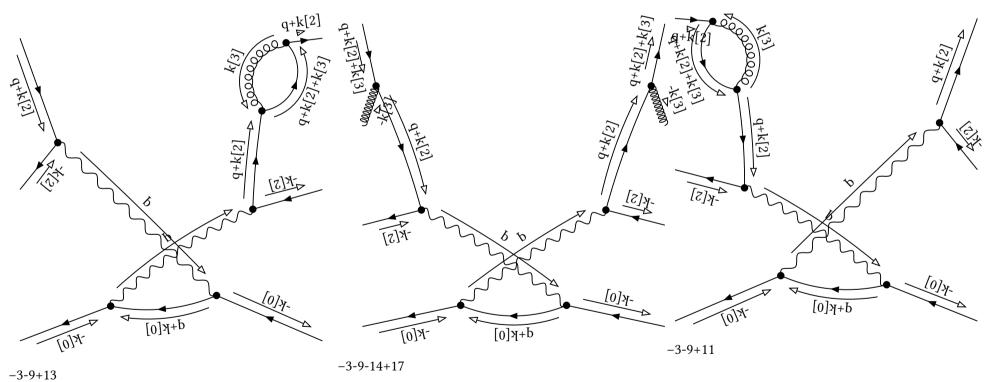
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



# embedding 16 [1, -1, 0, 1]

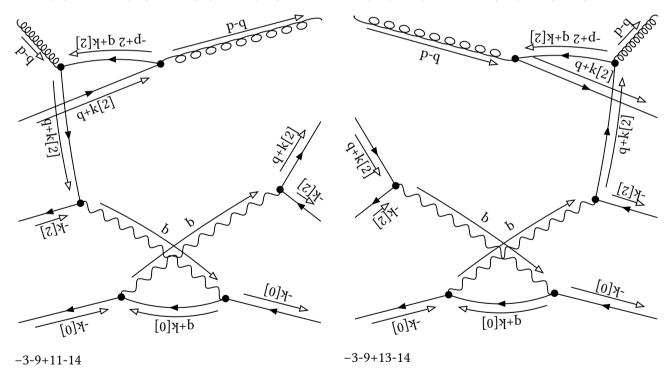
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



# embedding 17 [1, 0, -2, -2]

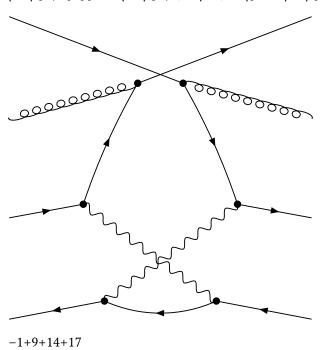
#### initial

Denominator:

Partial Fractioned Denominator:

Denominator:

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



# embedding 18 [1, 0, -2, -1]

#### initial

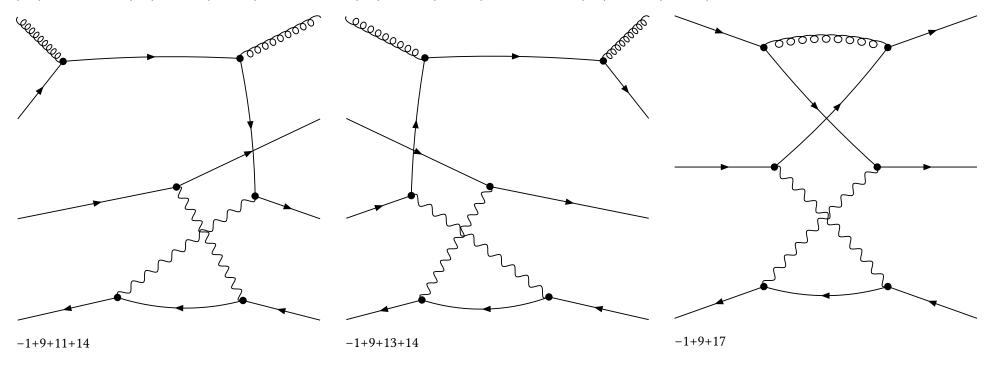
Denominator:

Partial Fractioned Denominator:

final

Denominator:

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



# embedding 19 [1, 0, -2, 0]

### initial

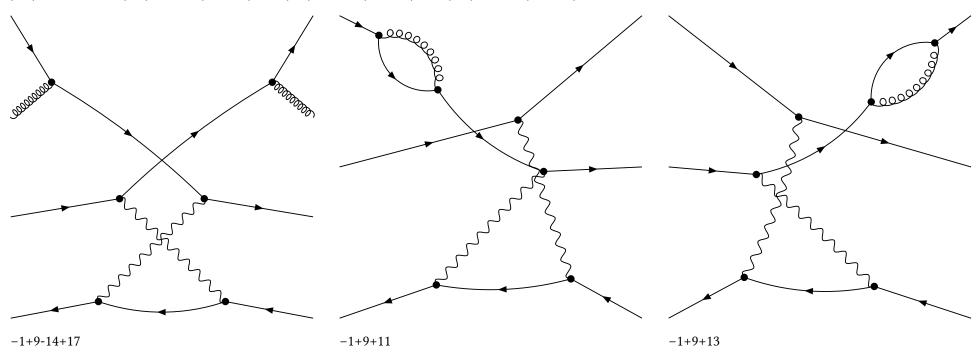
Denominator:

Partial Fractioned Denominator:

final

Denominator:

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



# embedding 20 [1, 0, -2, 1]

### initial

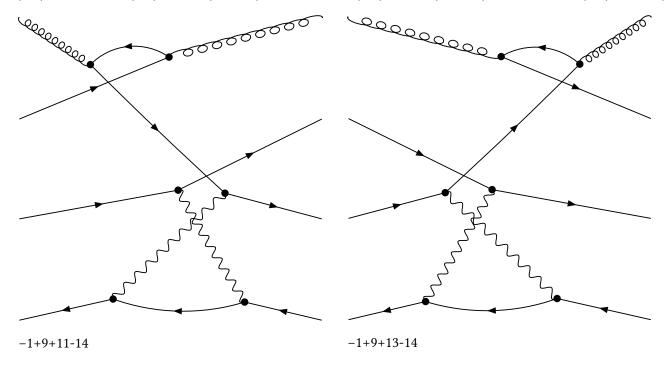
Denominator:

Partial Fractioned Denominator:

final

Denominator:

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



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

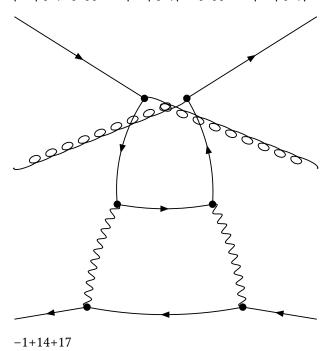
### initial

Denominator:

Partial Fractioned Denominator:

Denominator:

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



### embedding 22 [1, 0, -1, -1]

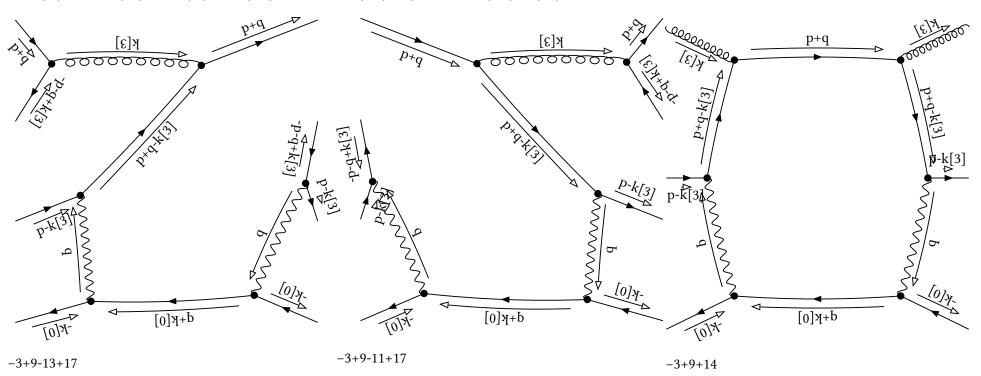
### initial

Denominator:

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

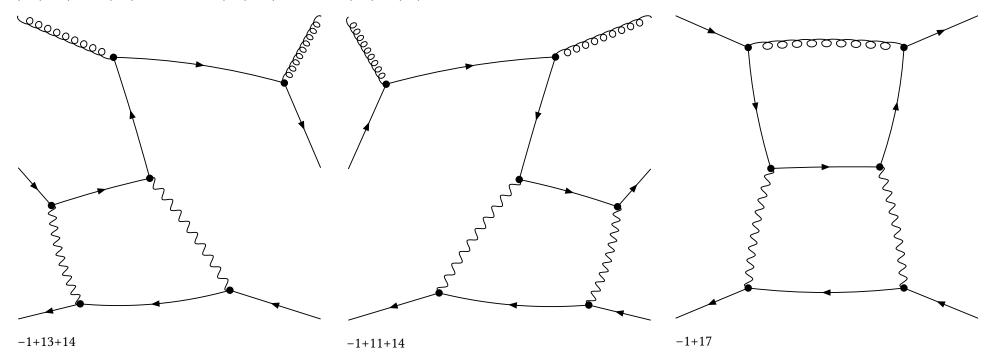
Partial Fractioned Denominator:

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



Denominator:

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



### embedding 23 [1, 0, -1, 0]

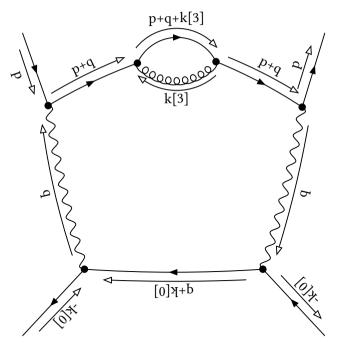
### initial

Denominator:

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

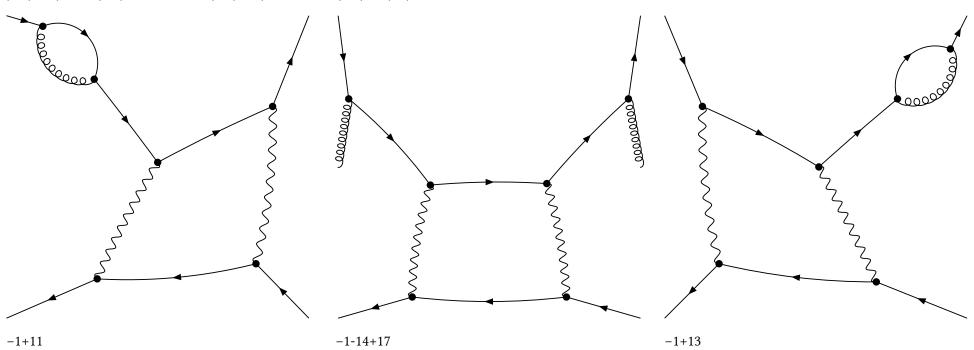
Partial Fractioned Denominator:

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



Denominator:

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



### embedding 24 [1, 0, -1, 1]

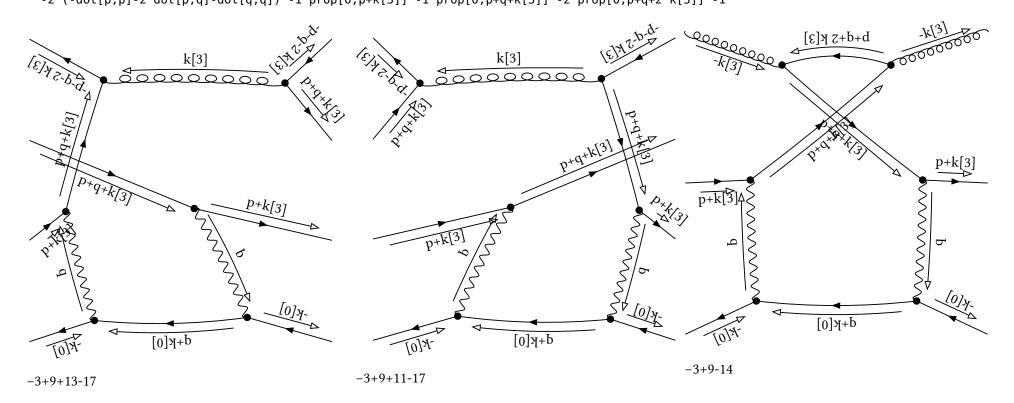
#### initial

Denominator:

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

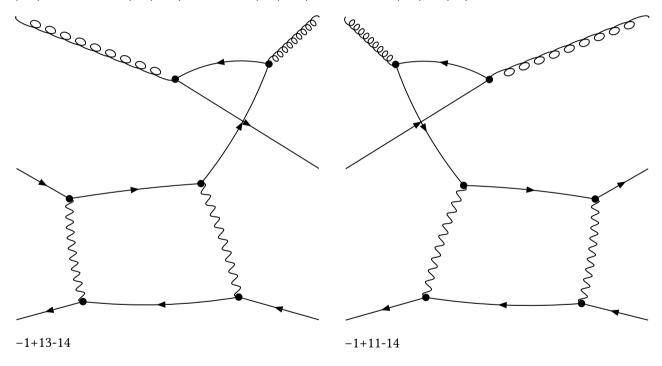
#### Partial Fractioned Denominator:

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



Denominator:

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



# embedding 25 [1, 0, 0, -2]

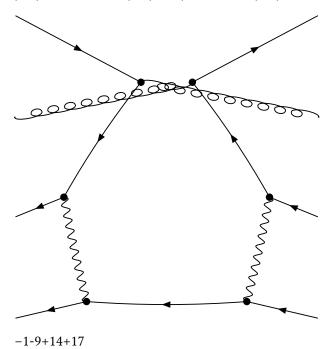
### initial

Denominator:

Partial Fractioned Denominator:

Denominator:

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



## embedding 26 [1, 0, 0, -1]

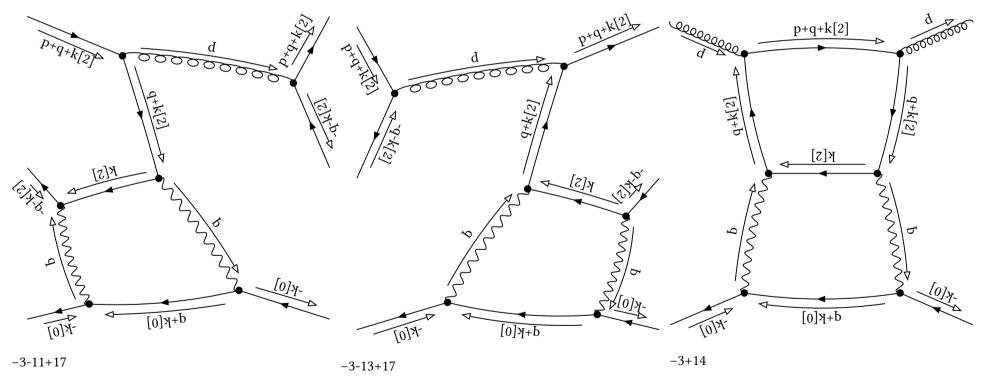
### initial

Denominator:

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

Partial Fractioned Denominator:

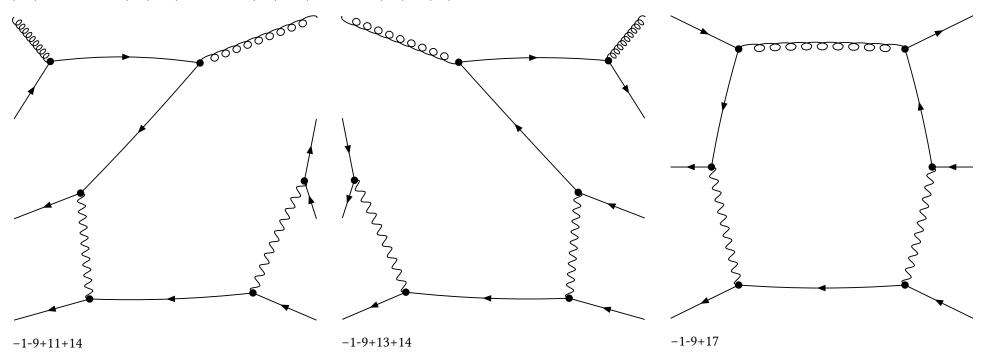
prop[0,k[2]]^-1 prop[0,q+k[2]]^-2 prop[0,p+q+k[2]]^-1 dot[p,p]^-1



final

Denominator:

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



### embedding 27 [1, 0, 0, 0]

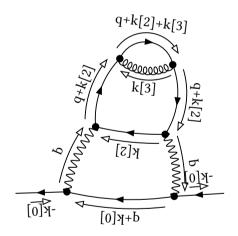
### initial

Denominator:

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

Partial Fractioned Denominator:

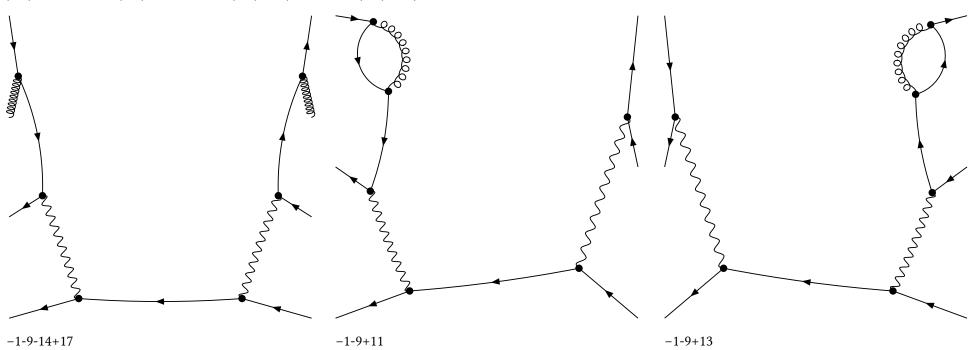
prop[0,k[2]]^-1 prop[0,k[3]]^-1 prop[0,q+k[2]]^-2 prop[0,q+k[2]+k[3]]^-1



final

Denominator:

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



### embedding 28 [1, 0, 0, 1]

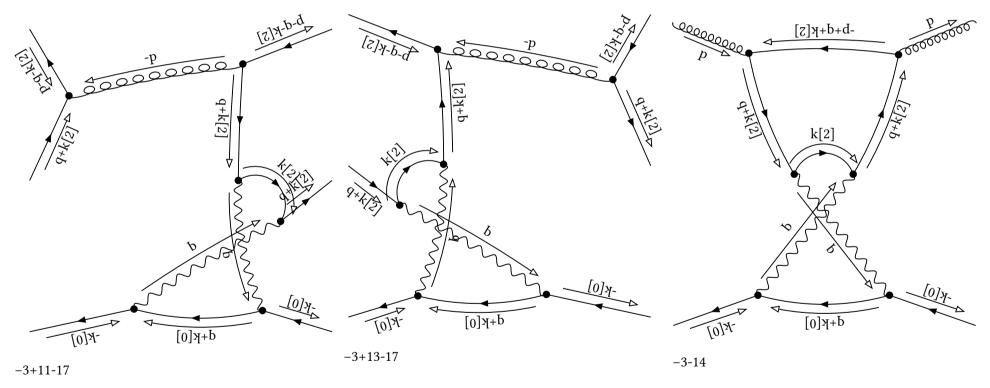
### initial

Denominator:

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

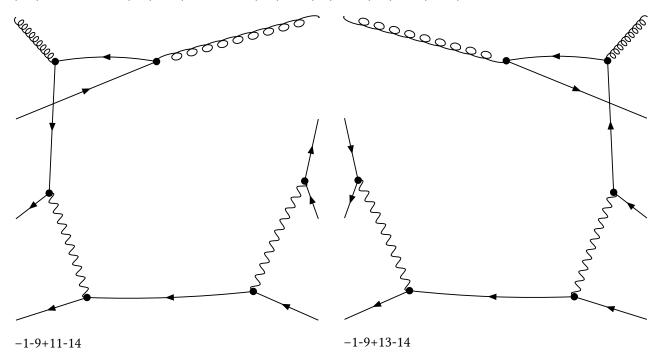
Partial Fractioned Denominator:

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



Denominator:

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



### embedding 29 [1, 0, 1, -1]

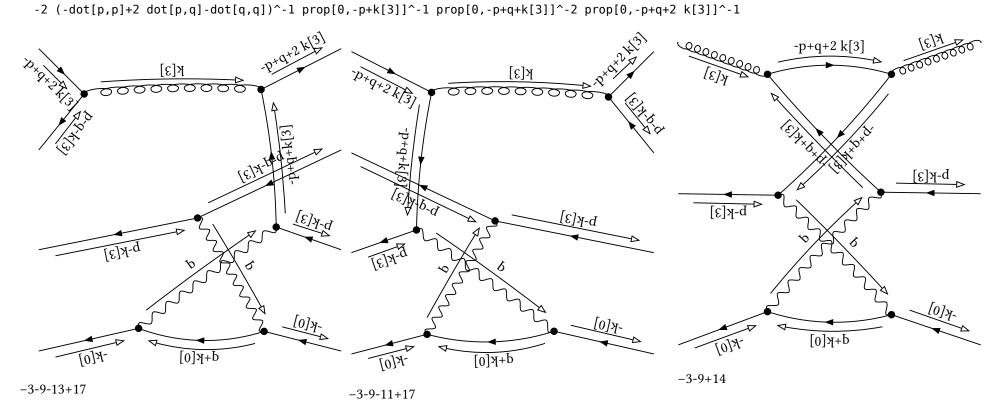
#### initial

#### Denominator:

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

#### Partial Fractioned Denominator:

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



Denominator:

### embedding 30 [1, 0, 1, 0]

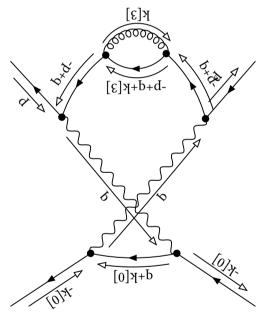
### initial

Denominator:

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

Partial Fractioned Denominator:

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



Denominator:

### embedding 31 [1, 0, 1, 1]

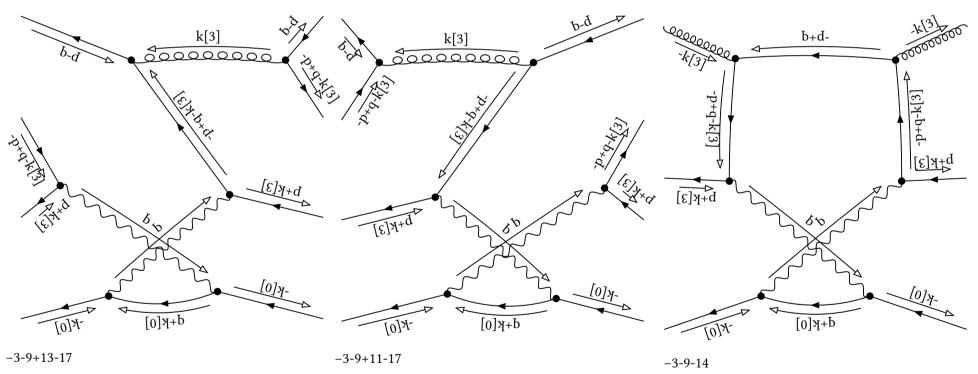
### initial

Denominator:

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

Partial Fractioned Denominator:

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



Denominator:

# embedding 32 [1, 1, -1, -1]

### initial

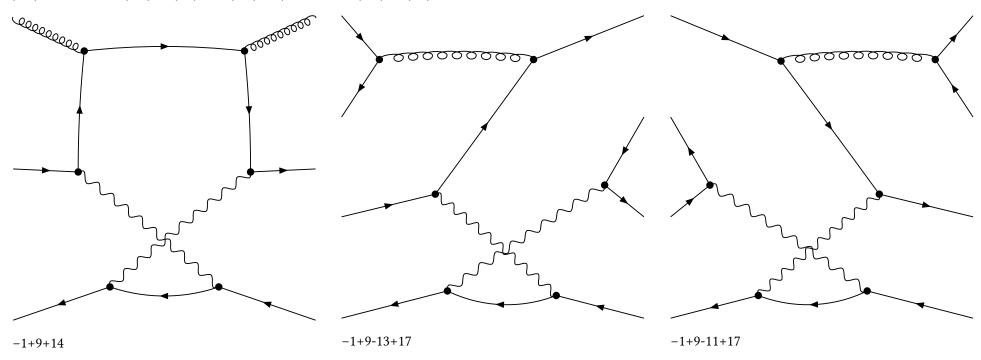
Denominator:

Partial Fractioned Denominator:

final

Denominator:

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



# embedding 33 [1, 1, -1, 0]

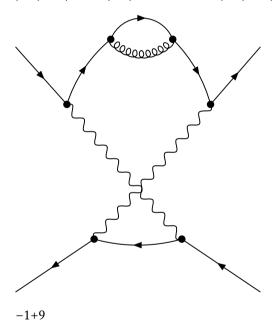
### initial

Denominator:

Partial Fractioned Denominator:

Denominator:

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



# embedding 34 [1, 1, -1, 1]

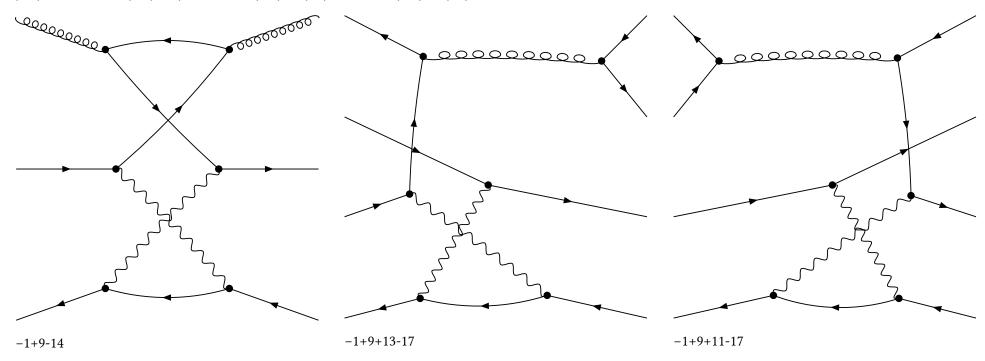
### initial

Denominator:

Partial Fractioned Denominator:

Denominator:

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



### embedding 35 [1, 1, 0, -1]

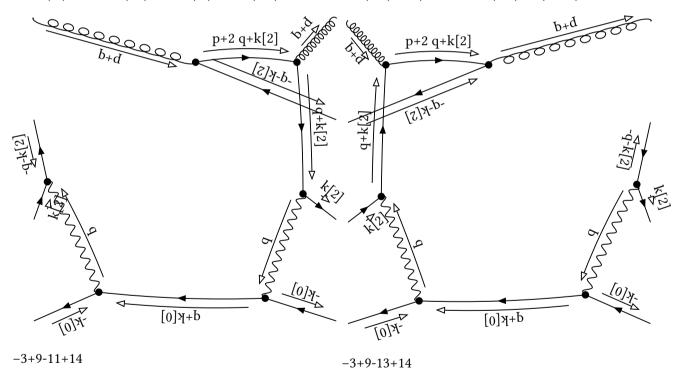
### initial

Denominator:

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

Partial Fractioned Denominator:

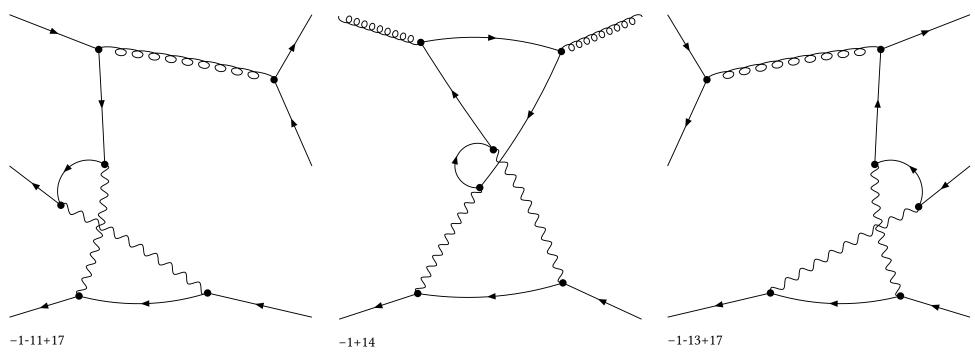
 $(\mathsf{dot}[\mathsf{p},\mathsf{p}] + 2 \ \mathsf{dot}[\mathsf{p},\mathsf{q}] + \mathsf{dot}[\mathsf{q},\mathsf{q}])^{-1} \ \mathsf{prop}[\mathsf{0},\mathsf{k}[2]]^{-1} \ \mathsf{prop}[\mathsf{0},\mathsf{q}+\mathsf{k}[2]]^{-2} \ \mathsf{prop}[\mathsf{0},\mathsf{p}+2 \ \mathsf{q}+\mathsf{k}[2]]^{-1}$ 



final

Denominator:

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



### embedding 36 [1, 1, 0, 0]

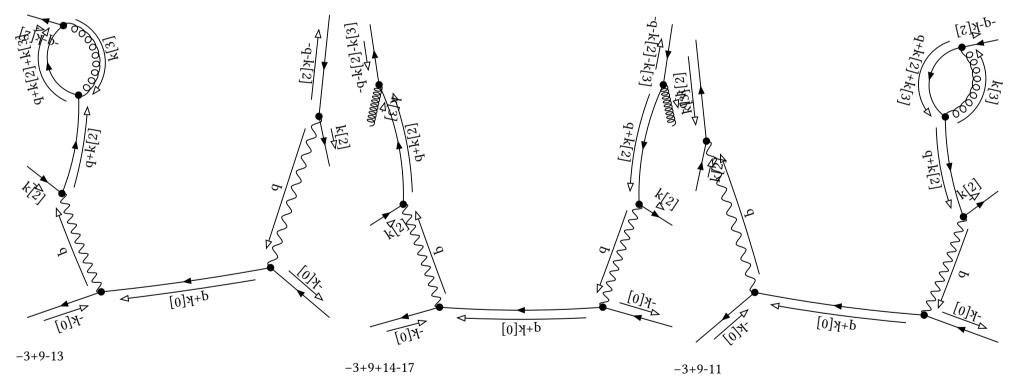
### initial

Denominator:

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

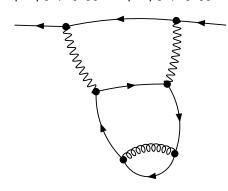
Partial Fractioned Denominator:

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



Denominator:

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



## embedding 37 [1, 1, 0, 1]

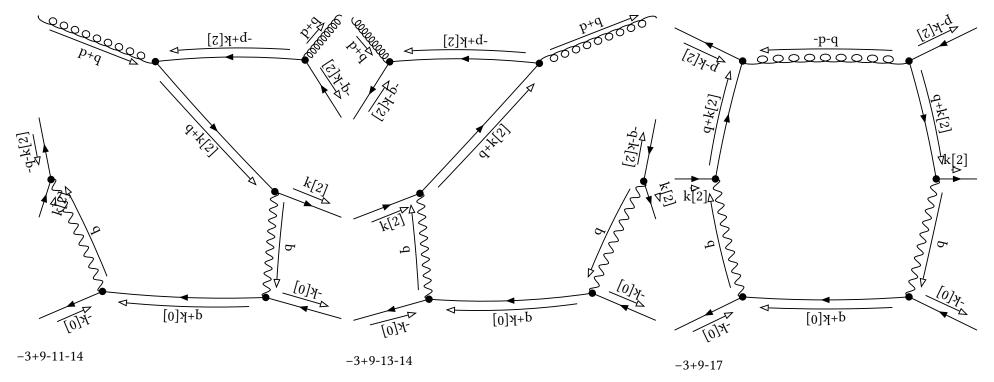
#### initial

Denominator:

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

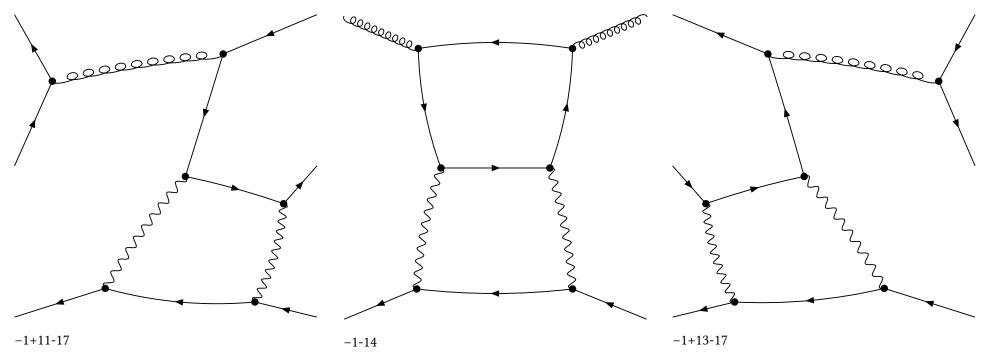
Partial Fractioned Denominator:

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



Denominator:

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



# embedding 38 [1, 1, 0, 2]

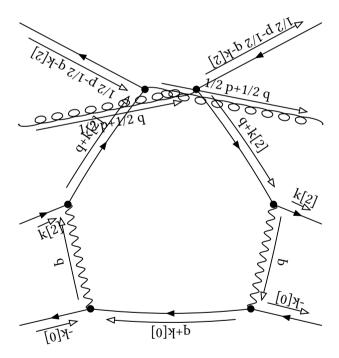
#### initial

Denominator:

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

Partial Fractioned Denominator:

 $(1/4\ dot[p,p]+1/2\ dot[p,q]+1/4\ dot[q,q])^{-1}\ prop[0,k[2]]^{-1}\ prop[0,q+k[2]]^{-2}\ prop[0,-1/2\ p+1/2\ q+k[2]]^{-1}$ 



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Denominator:

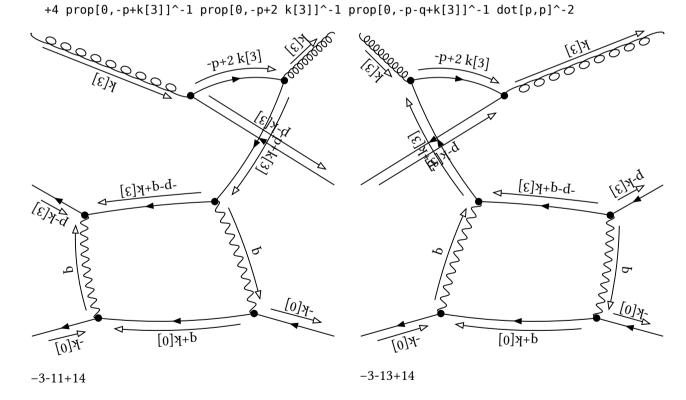
## embedding 39 [1, 1, 1, -1]

#### initial

Denominator:

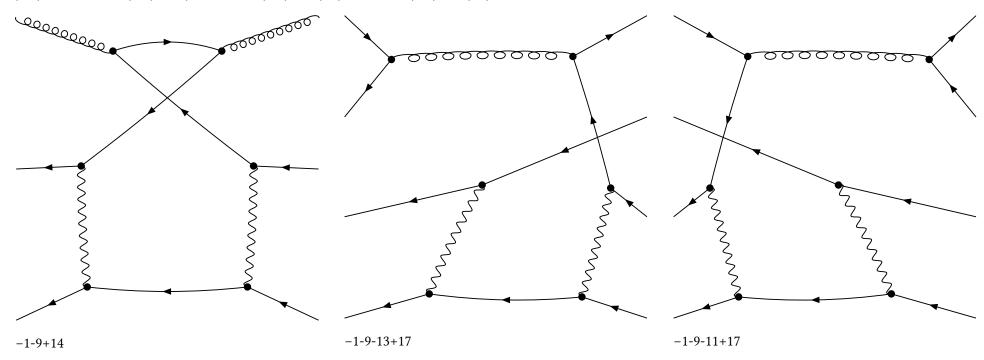
prop[0,k[3]]^-1 prop[0,-p+k[3]]^-2 prop[0,-p+2 k[3]]^-1 prop[0,-p-q+k[3]]^-1

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



Denominator:

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



# embedding 40 [1, 1, 1, 0]

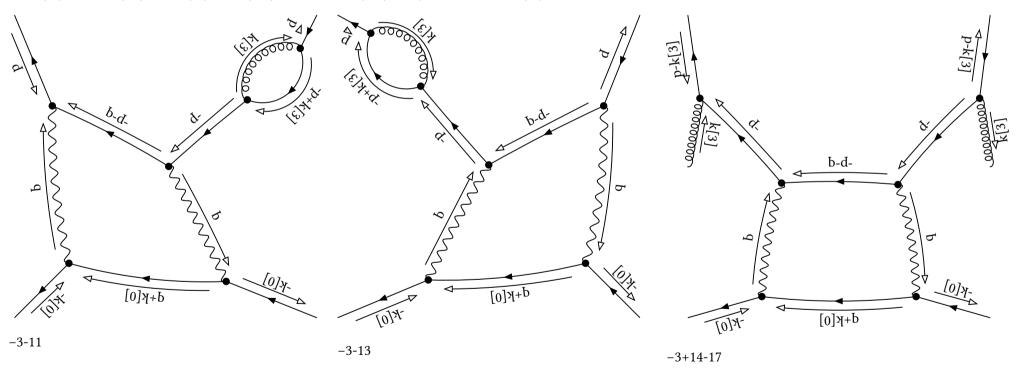
#### initial

Denominator:

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

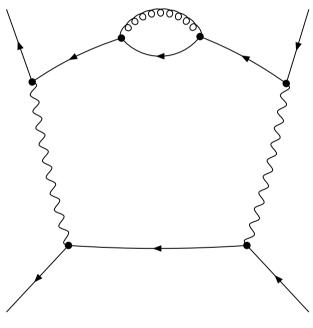
Partial Fractioned Denominator:

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



Denominator:

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



## embedding 41 [1, 1, 1, 1]

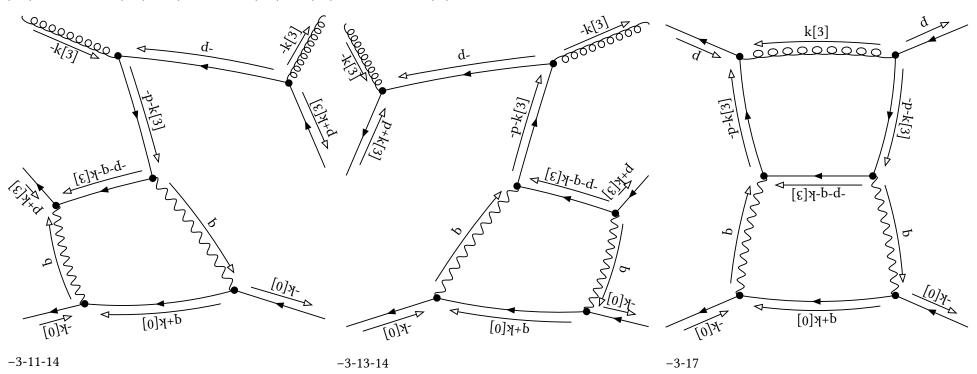
#### initial

Denominator:

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

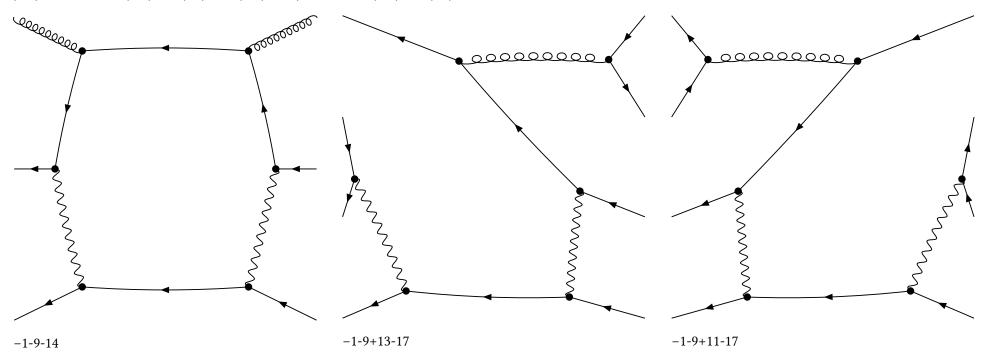
Partial Fractioned Denominator:

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



Denominator:

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



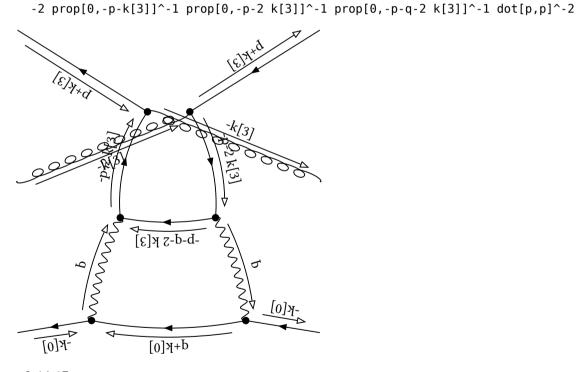
## embedding 42 [1, 1, 1, 2]

#### initial

Denominator:

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

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



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Denominator:

## embedding 43 [1, 1, 2, -1]

#### initial

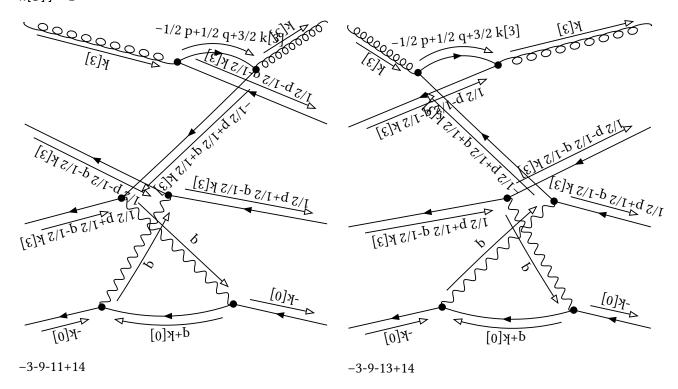
Denominator:

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

Partial Fractioned Denominator:

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

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



Denominator:

## embedding 44 [1, 1, 2, 0]

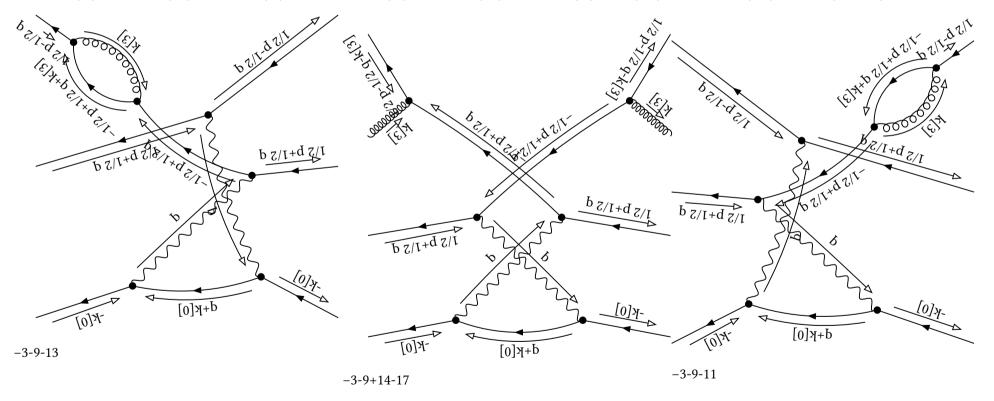
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



Denominator:

## embedding 45 [1, 1, 2, 1]

#### initial

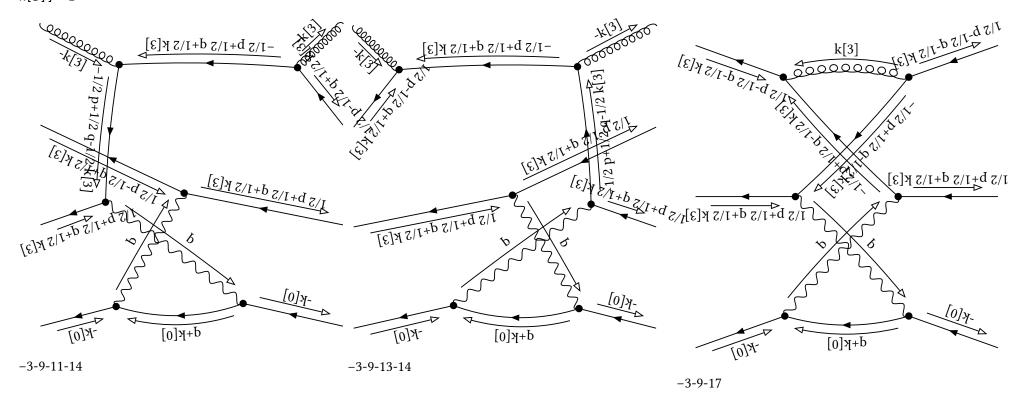
Denominator:

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

#### Partial Fractioned Denominator:

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

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



Denominator:

# embedding 46 [1, 1, 2, 2]

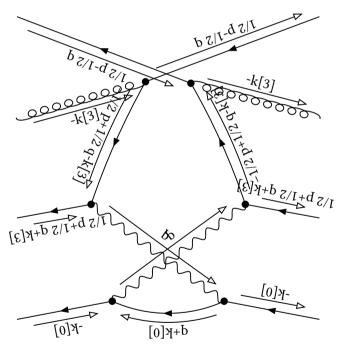
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



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Denominator:

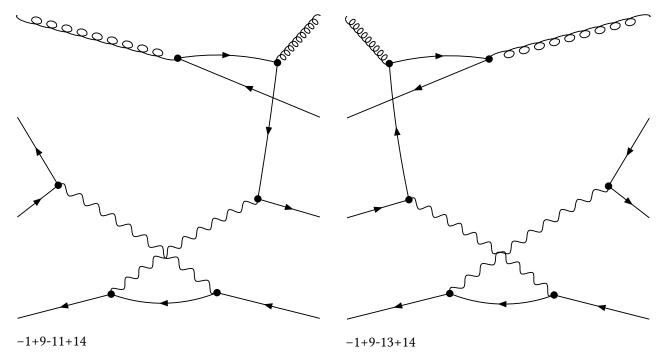
# embedding 47 [1, 2, 0, -1]

#### initial

Denominator:

Denominator:

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



# embedding 48 [1, 2, 0, 0]

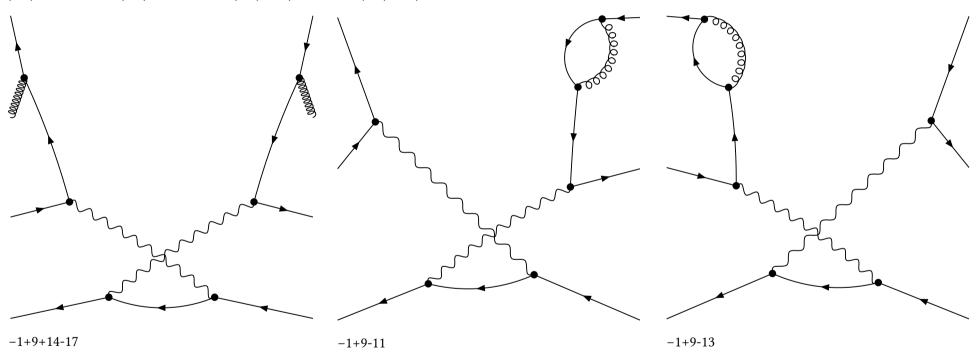
#### initial

Denominator:

final

Denominator:

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



# embedding 49 [1, 2, 0, 1]

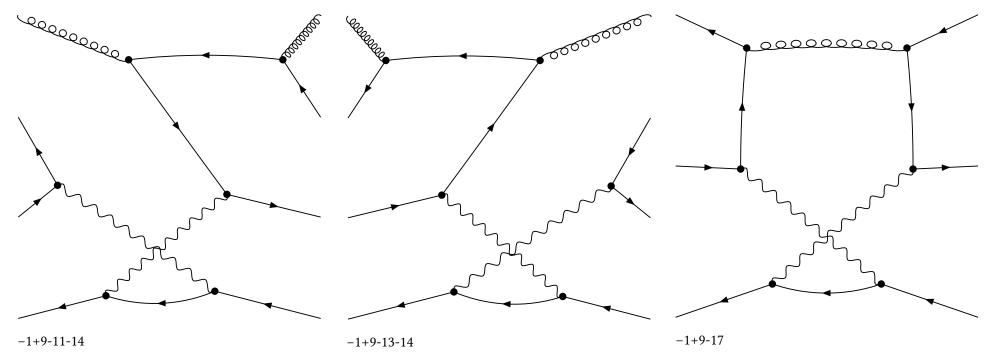
#### initial

Denominator:

final

Denominator:

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



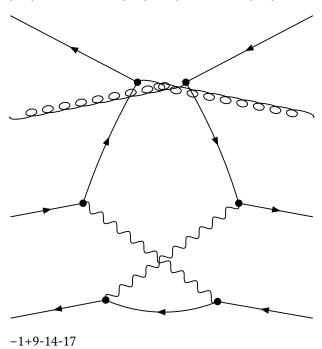
# embedding 50 [1, 2, 0, 2]

#### initial

Denominator:

Denominator:

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



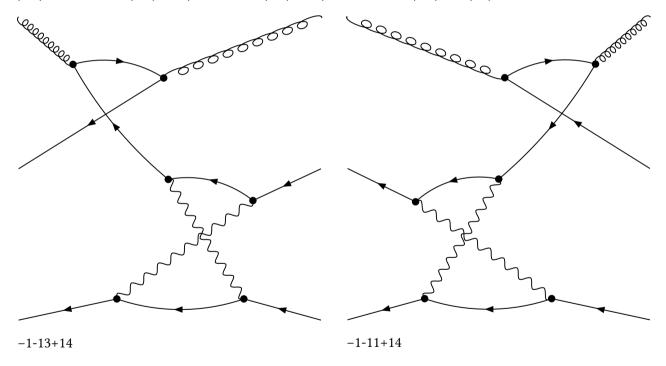
# embedding 51 [1, 2, 1, -1]

#### initial

Denominator:

Denominator:

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



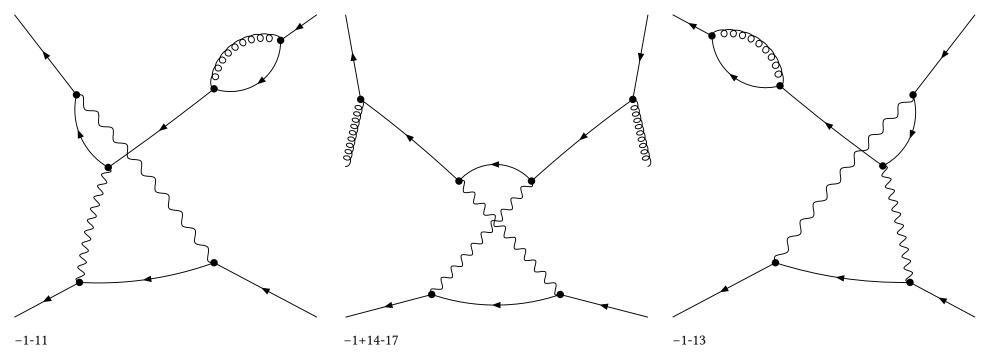
# embedding 52 [1, 2, 1, 0]

#### initial

Denominator:

Denominator:

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



## embedding 53 [1, 2, 1, 1]

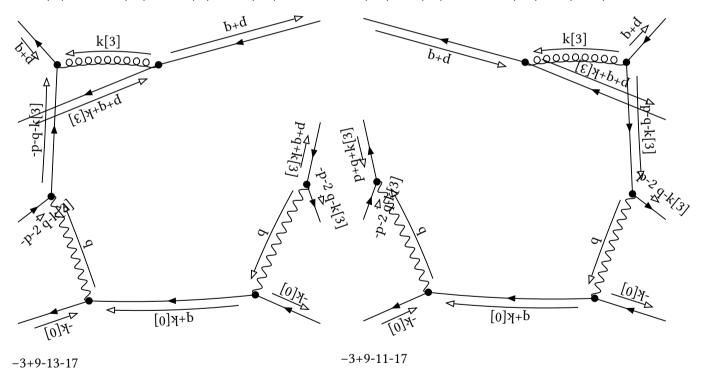
#### initial

Denominator:

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

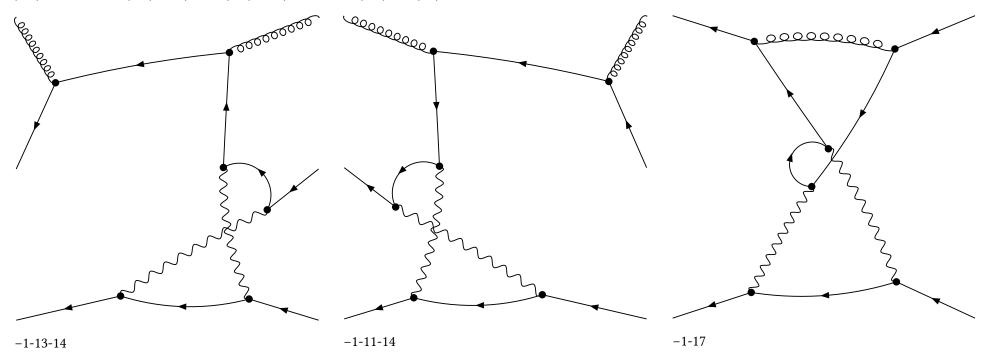
Partial Fractioned Denominator:

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



Denominator:

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



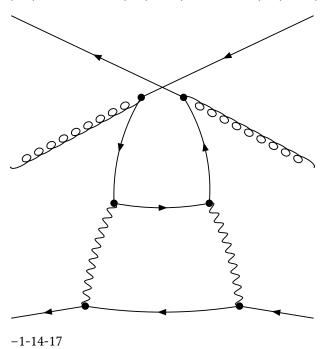
# embedding 54 [1, 2, 1, 2]

#### initial

Denominator:

Denominator:

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



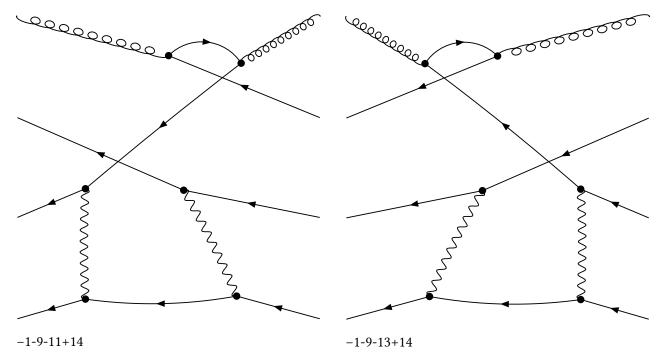
# embedding 55 [1, 2, 2, -1]

#### initial

Denominator:

final

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



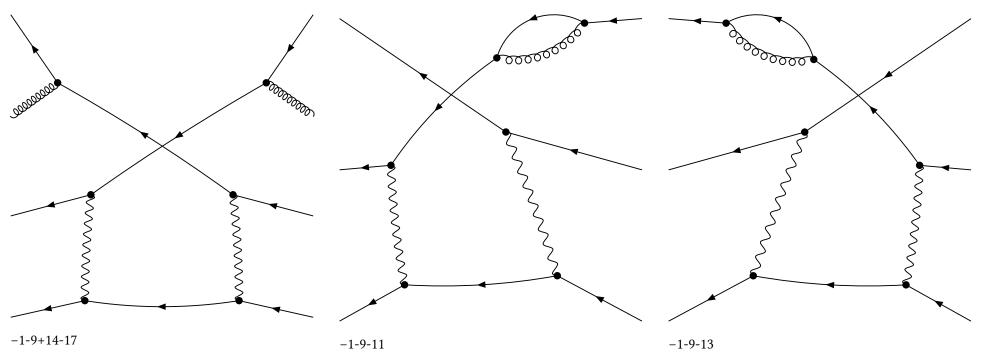
# embedding 56 [1, 2, 2, 0]

#### initial

Denominator:

final

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



## embedding 57 [1, 2, 2, 1]

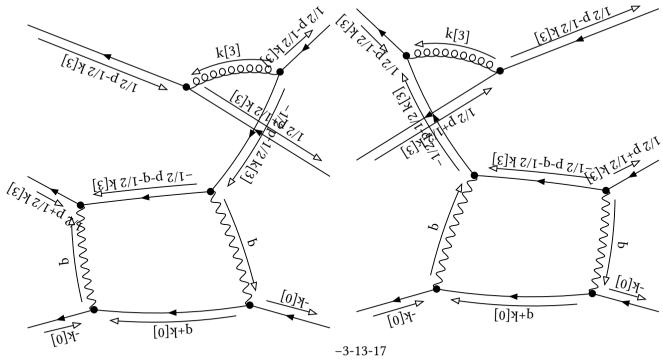
#### initial

Denominator:

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

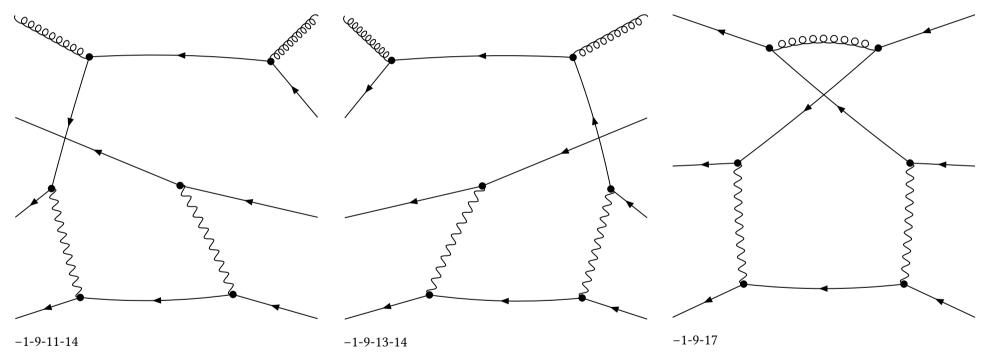
Partial Fractioned Denominator:

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



final

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



# embedding 58 [1, 2, 2, 2]

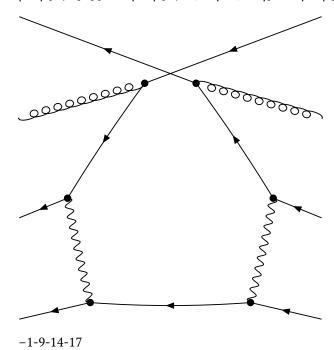
#### initial

Denominator:

#### final

Denominator:

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



### embedding 59 [1, 2, 3, 1]

#### initial

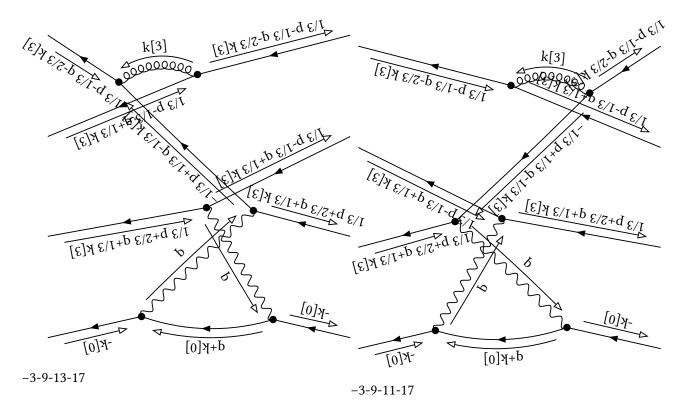
Denominator:

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

Partial Fractioned Denominator:

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

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



### final

Denominator:

## embedding 60 [1, 3, 1, 1]

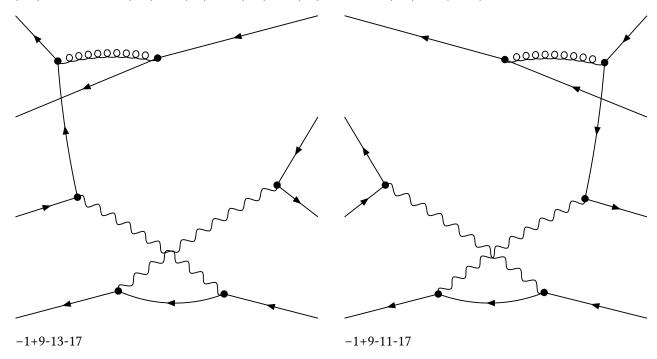
#### initial

Denominator:

## final

Denominator:

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



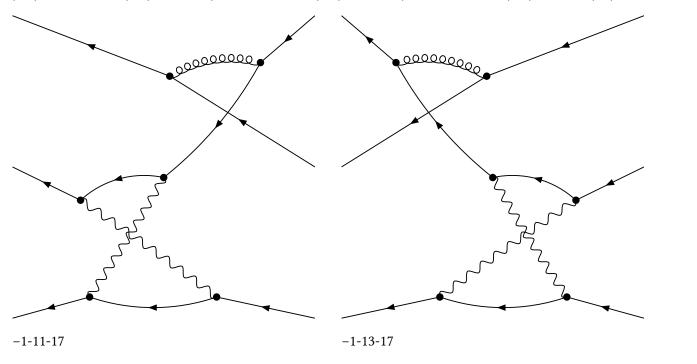
# embedding 61 [1, 3, 2, 1]

#### initial

Denominator:

final

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



## embedding 62 [1, 3, 3, 1]

#### initial

Denominator:

final

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

