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

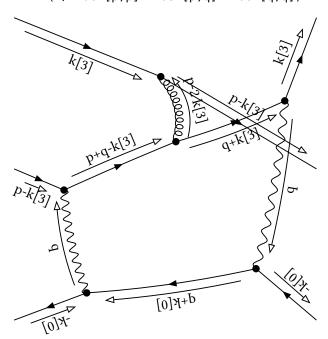
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



-3+11+13

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

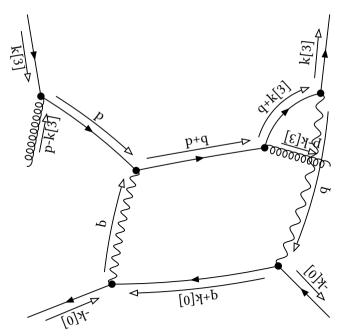
### initial

Denominator:

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

Partial Fractioned Denominator:

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



-3+9+13

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

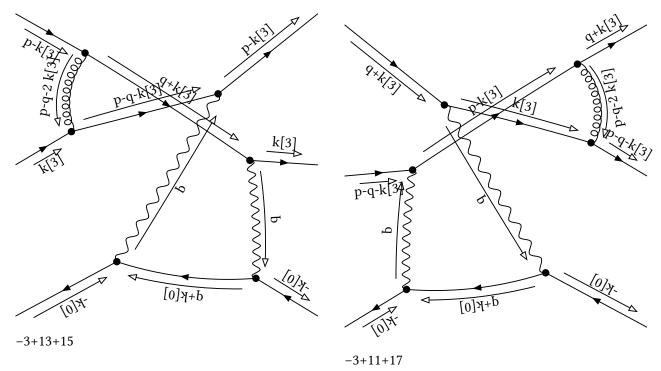
#### initial

Denominator:

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

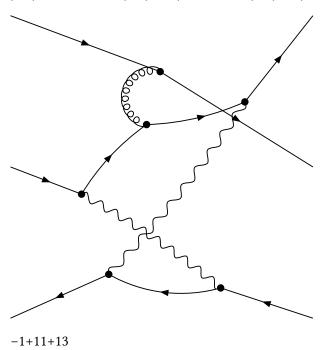
#### Partial Fractioned Denominator:

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



Denominator:

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



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

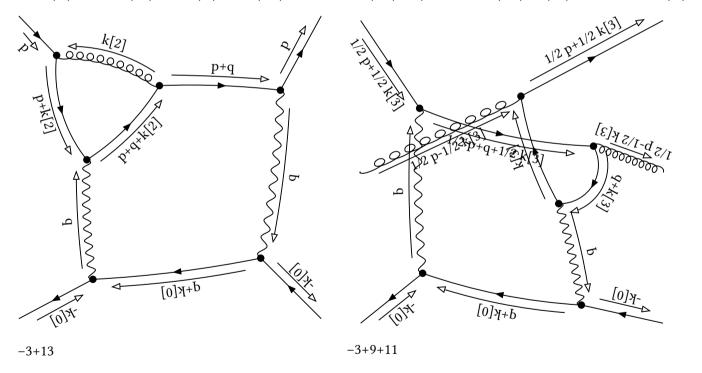
### initial

Denominator:

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

Partial Fractioned Denominator:

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



# embedding 5 [1, -1, -1, 0]

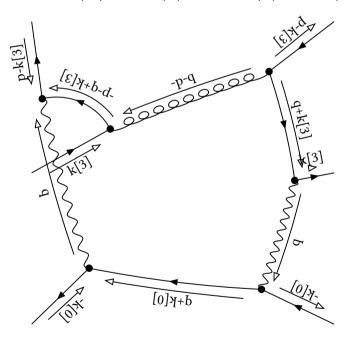
### initial

Denominator:

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

Partial Fractioned Denominator:

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



-3+13-15

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

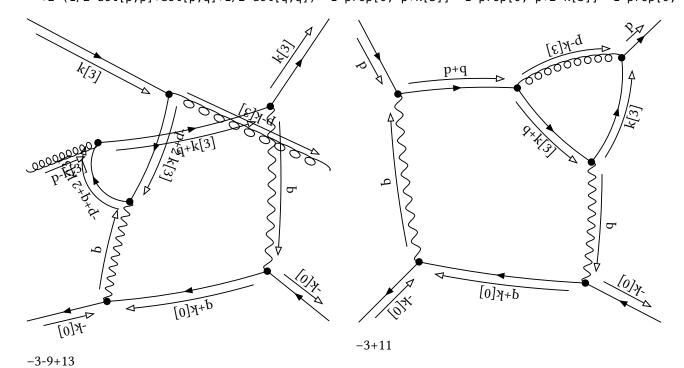
#### initial

Denominator:

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

#### Partial Fractioned Denominator:

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



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

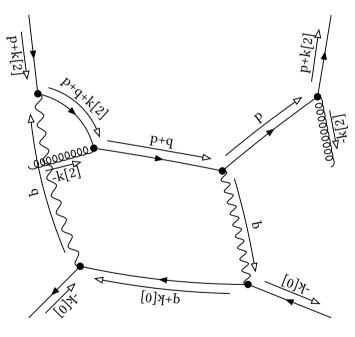
### initial

Denominator:

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

Partial Fractioned Denominator:

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



-3-9+11

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

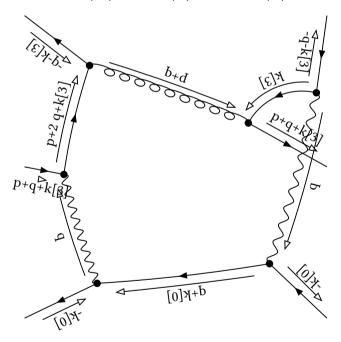
### initial

Denominator:

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

Partial Fractioned Denominator:

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



-3+11-17

# embedding 9 [1, 0, -2, -1]

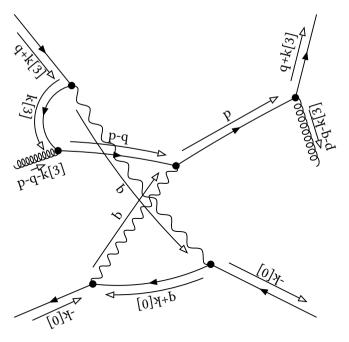
### initial

Denominator:

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

Partial Fractioned Denominator:

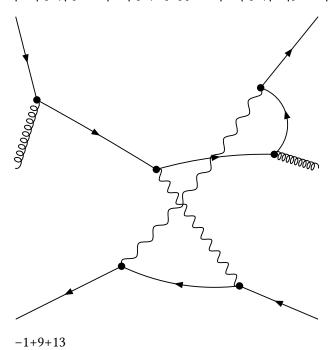
 $(dot[p,p]-2 dot[p,q]+dot[q,q])^{-1} prop[0,k[3]]^{-1} prop[0,q+k[3]]^{-1} prop[0,p-q-k[3]]^{-1} dot[p,p]^{-1}$ 



-3+9+17

Denominator:

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



### embedding 10 [1, 0, -1, -2]

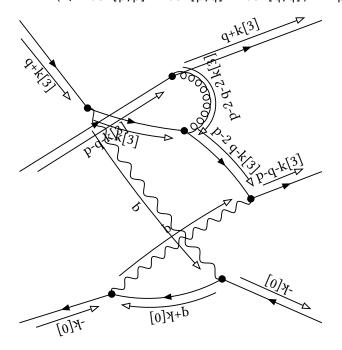
#### initial

Denominator:

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

#### Partial Fractioned Denominator:

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

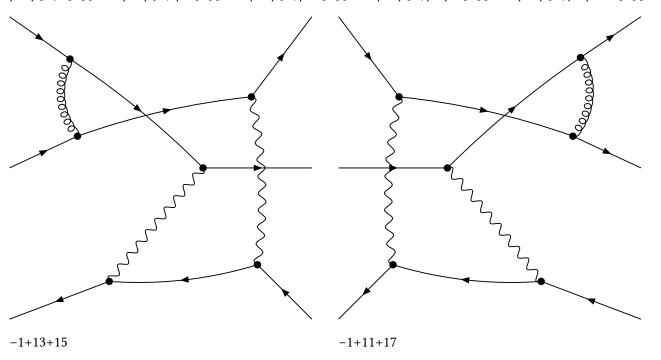


-3+15+17

final

Denominator:

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



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

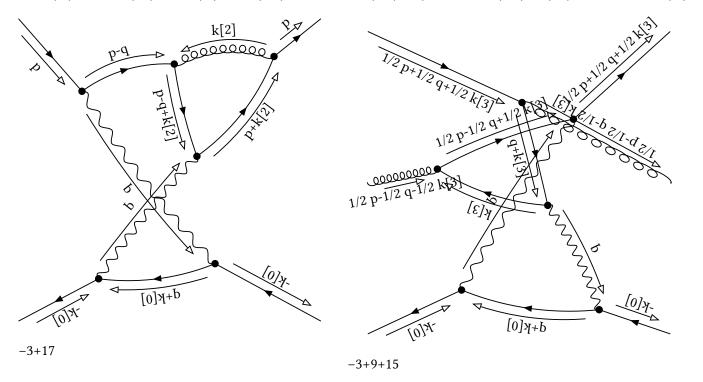
### initial

Denominator:

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

Partial Fractioned Denominator:

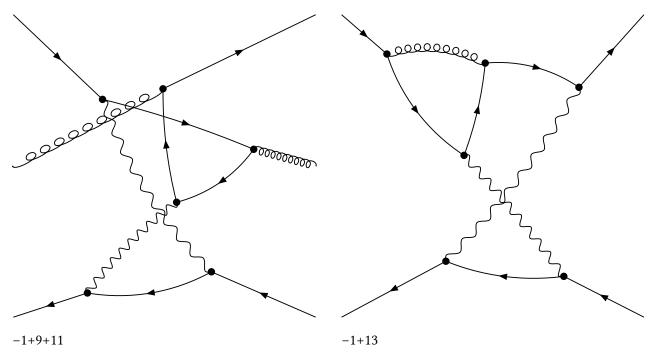
 $(dot[p,p]-2 \ dot[p,q]+dot[q,q])^-1 \ prop[0,k[2]]^-1 \ prop[0,p+k[2]]^-1 \ prop[0,p-q+k[2]]^-1 \ dot[p,p]^-1$ 



final

Denominator:

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



# embedding 12 [1, 0, -1, 0]

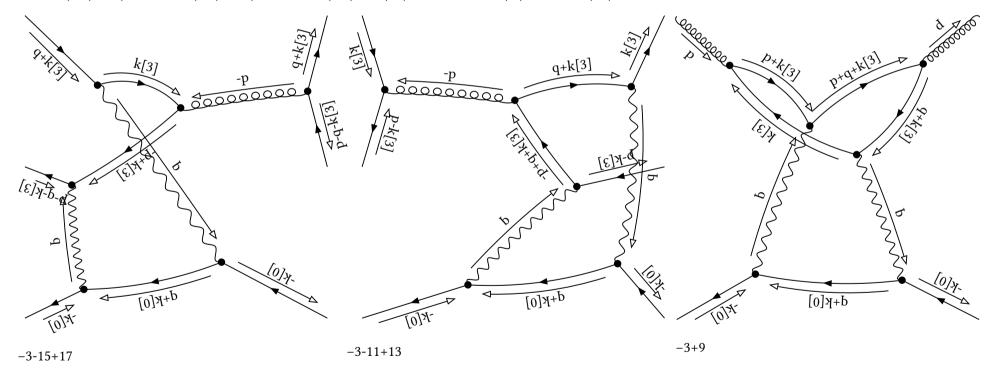
### initial

Denominator:

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

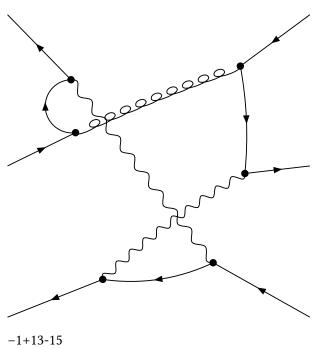
Partial Fractioned Denominator:

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



Denominator:

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



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

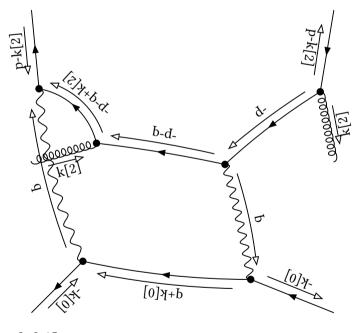
### initial

Denominator:

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

Partial Fractioned Denominator:

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



-3+9-15

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

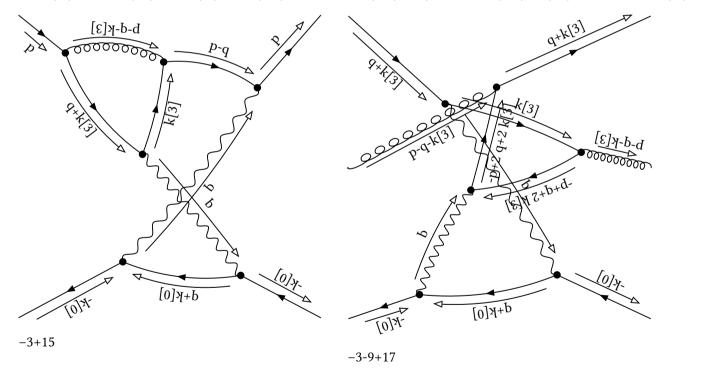
### initial

Denominator:

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

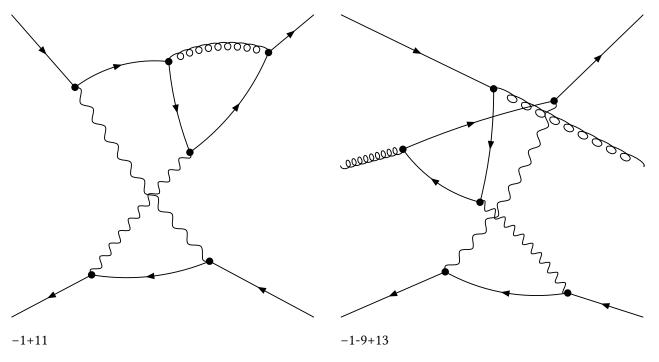
Partial Fractioned Denominator:

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



Denominator:

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



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

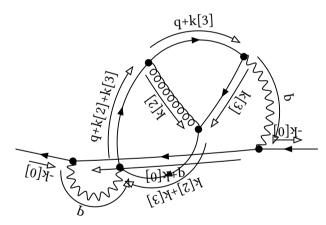
### initial

Denominator:

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



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

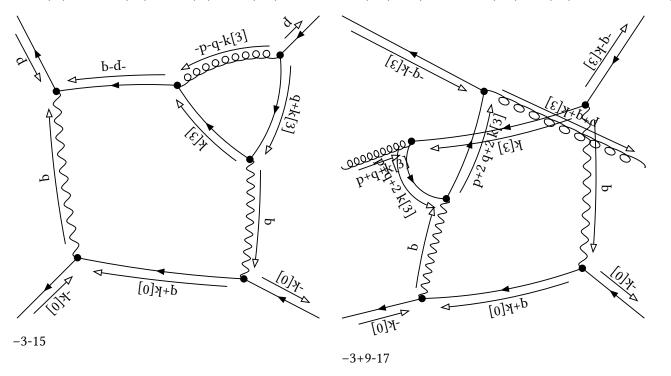
### initial

Denominator:

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

Partial Fractioned Denominator:

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



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

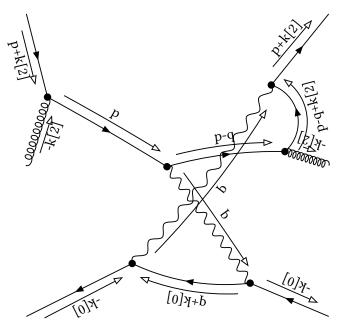
### initial

Denominator:

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

Partial Fractioned Denominator:

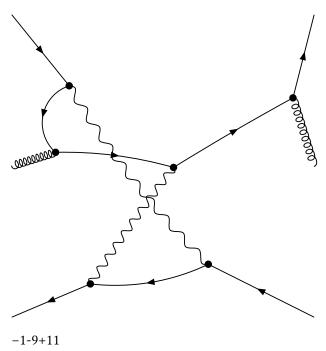
 $(\mathsf{dot}[\mathsf{p},\mathsf{p}]\text{-}2\ \mathsf{dot}[\mathsf{p},\mathsf{q}]\text{+}\mathsf{dot}[\mathsf{q},\mathsf{q}])^{-}1\ \mathsf{prop}[\mathsf{0},\mathsf{k}[\mathsf{2}]]^{-}1\ \mathsf{prop}[\mathsf{0},\mathsf{p}+\mathsf{k}[\mathsf{2}]]^{-}1\ \mathsf{prop}[\mathsf{0},\mathsf{p}-\mathsf{q}+\mathsf{k}[\mathsf{2}]]^{-}1\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



-3-9+15

Denominator:

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



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

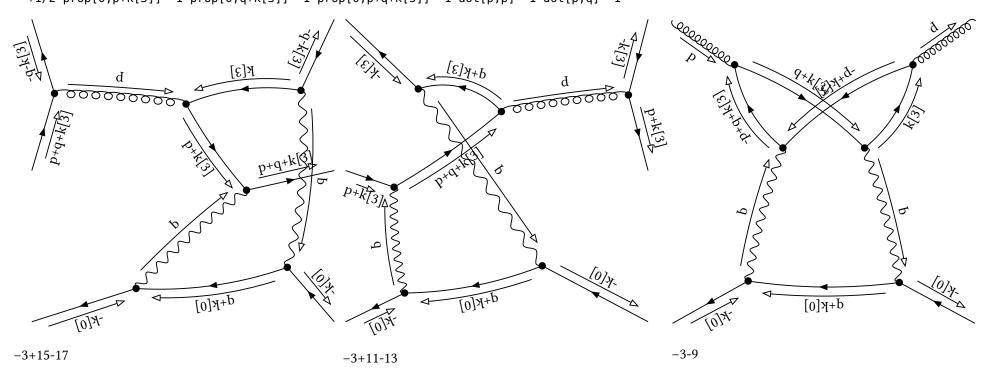
### initial

Denominator:

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

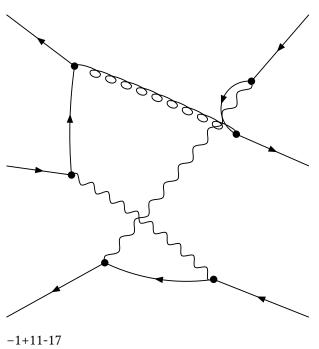
Partial Fractioned Denominator:

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



Denominator:

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



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

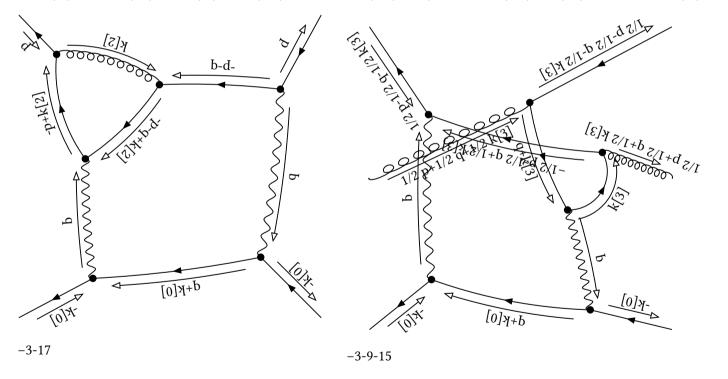
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



Denominator:

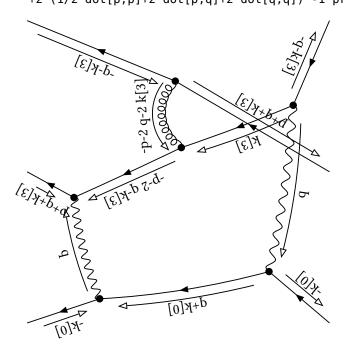
### embedding 20 [1, 0, 1, 2]

#### initial

Denominator:

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

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



Denominator:

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

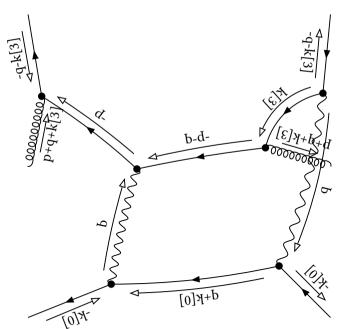
#### initial

Denominator:

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

Partial Fractioned Denominator:

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



-3-9-17

Denominator:

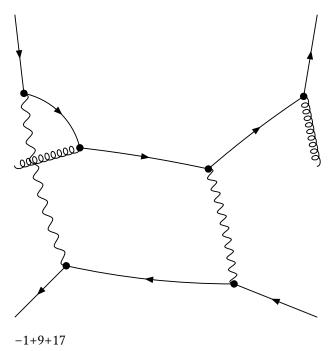
# embedding 22 [1, 1, -2, -1]

#### initial

Denominator:

Denominator:

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



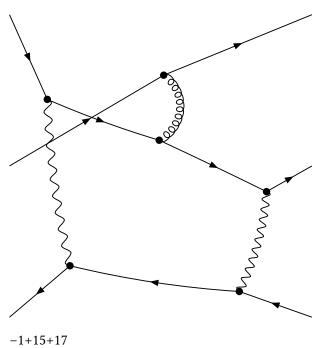
# embedding 23 [1, 1, -1, -2]

#### initial

Denominator:

Denominator:

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



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

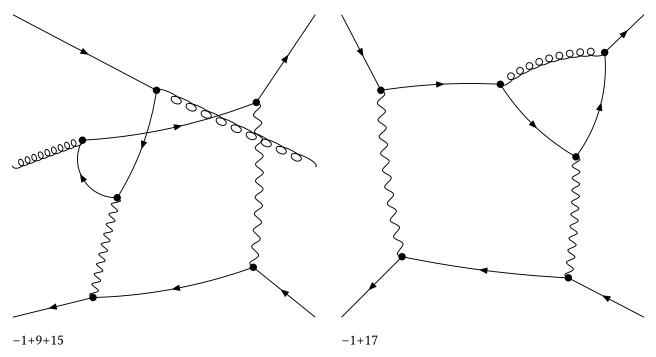
#### initial

Denominator:

final

Denominator:

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



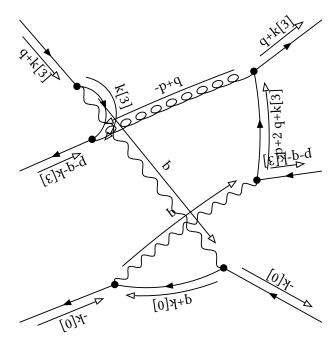
## embedding 25 [1, 1, -1, 0]

#### initial

Denominator:

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

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

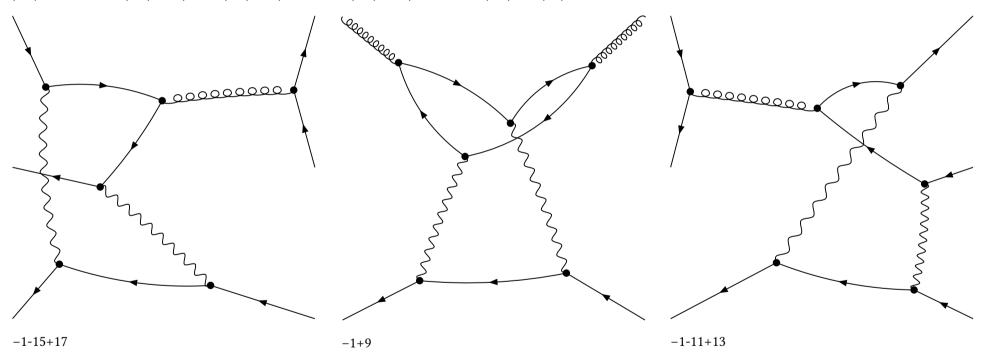


-3-11+17

final

Denominator:

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



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

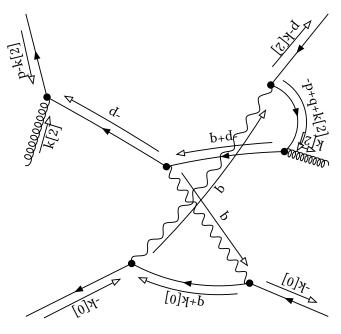
#### initial

Denominator:

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

Partial Fractioned Denominator:

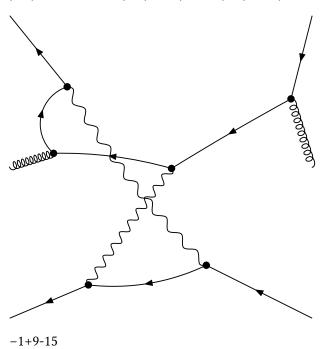
 $(\mathsf{dot}[\mathsf{p},\mathsf{p}]\text{-}2\ \mathsf{dot}[\mathsf{p},\mathsf{q}]\text{+}\mathsf{dot}[\mathsf{q},\mathsf{q}])^{-}1\ \mathsf{prop}[\mathsf{0},\mathsf{k}[\mathsf{2}]]^{-}1\ \mathsf{prop}[\mathsf{0},\text{-}\mathsf{p}+\mathsf{k}[\mathsf{2}]]^{-}1\ \mathsf{prop}[\mathsf{0},\text{-}\mathsf{p}+\mathsf{q}+\mathsf{k}[\mathsf{2}]]^{-}1\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



-3+9-11

Denominator:

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



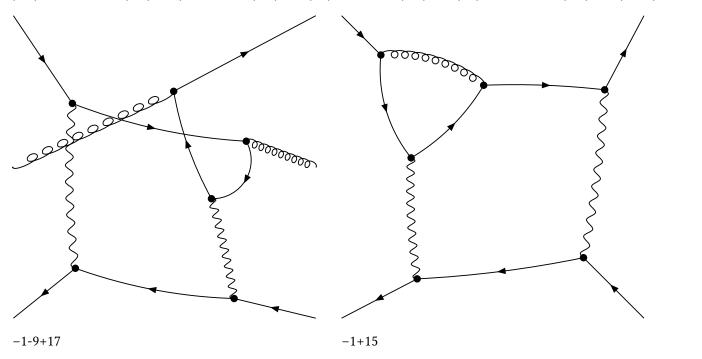
# embedding 27 [1, 1, 0, -1]

#### initial

Denominator:

Denominator:

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



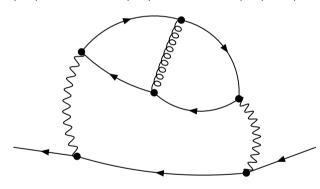
# embedding 28 [1, 1, 0, 0]

#### initial

Denominator:

Denominator:

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



\_1

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

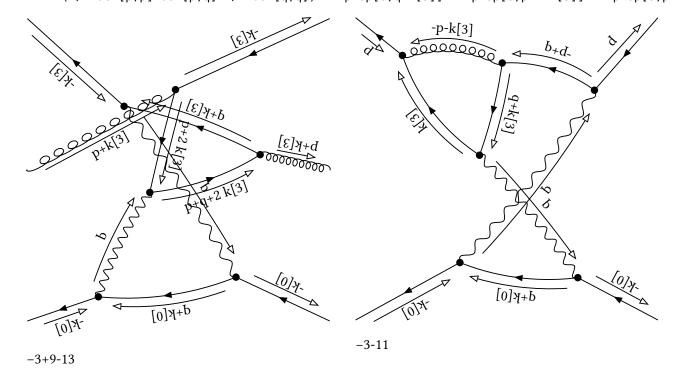
#### initial

Denominator:

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

#### Partial Fractioned Denominator:

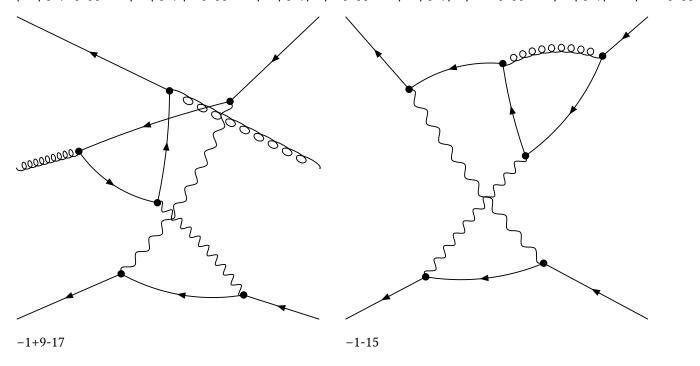
-(-dot[p,q]+1/2 dot[q,q])^-1 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p+2 k[3]]^-1 dot[p,p]^-1
+(-dot[p,q]+1/2 dot[q,q])^-1 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p+q+2 k[3]]^-1 dot[p,p]^-1
+2 (-dot[p,q]+1/2 dot[q,q])^-1 prop[0,k[3]]^-1 prop[0,p+2 k[3]]^-1 prop[0,p+q+2 k[3]]^-1 dot[p,p]^-1
-2 (-dot[p,q]+1/2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



final

Denominator:

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



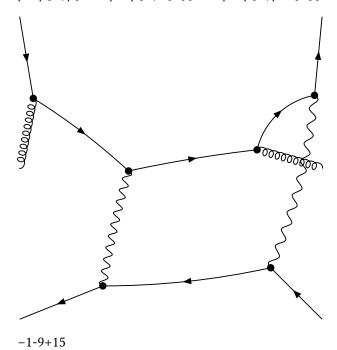
## embedding 30 [1, 1, 1, -1]

#### initial

Denominator:

Denominator:

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



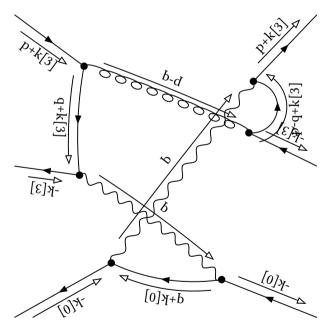
## embedding 31 [1, 1, 1, 0]

#### initial

Denominator:

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

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

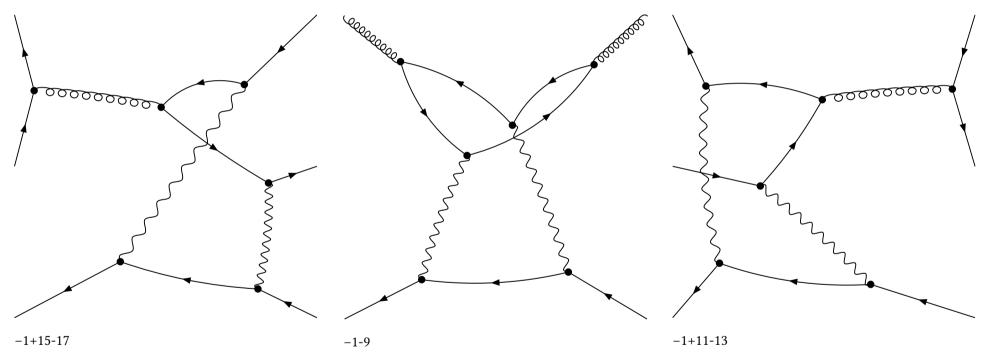


-3-13+15

final

Denominator:

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



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

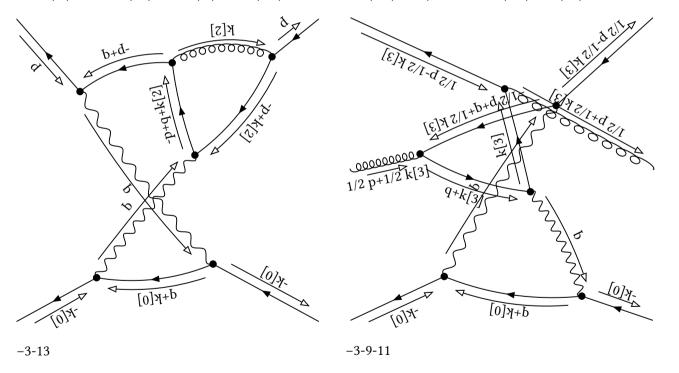
#### initial

Denominator:

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

Partial Fractioned Denominator:

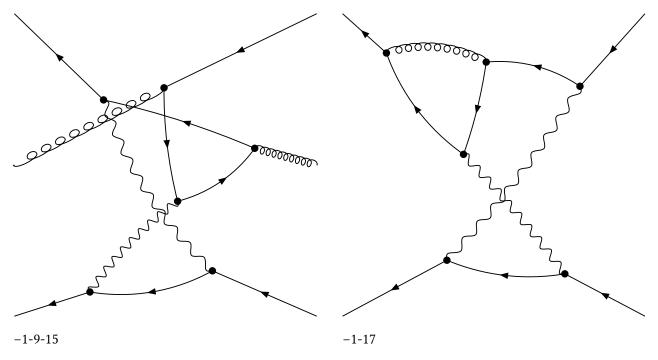
 $(dot[p,p]-2 \ dot[p,q]+dot[q,q])^{-1} \ prop[0,k[2]]^{-1} \ prop[0,-p+k[2]]^{-1} \ prop[0,-p+q+k[2]]^{-1} \ dot[p,p]^{-1}$ 



final

Denominator:

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



### embedding 33 [1, 1, 1, 2]

#### initial

Denominator:

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

#### Partial Fractioned Denominator:

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

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

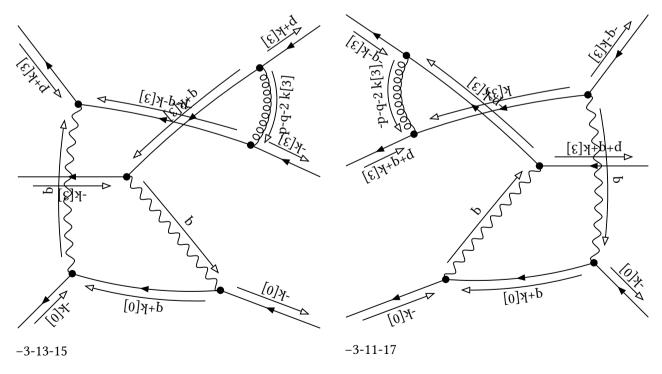
 $+(1/2 \text{ dot}[p,p]-\text{dot}[p,q]+1/2 \text{ dot}[q,q])^-1 (1/2 \text{ dot}[p,p]+\text{dot}[p,q]+1/2 \text{ dot}[q,q])^-1 \text{ prop}[0,-p-k[3]]^-1 \text{ prop}[0,-p-q-k[3]]^-1 \text{ prop}[0,-p-q-k[3]]^-1$ 

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

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

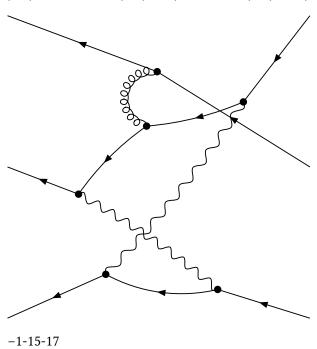
+1/4 (1/2 dot[p,p]+dot[p,q]+1/2 dot[q,q])^-1 prop[0,k[3]]^-1 prop[0,-p-k[3]]^-1 prop[0,-p-q-k[3]]^-1 dot[p,q]^-1

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



Denominator:

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



## embedding 34 [1, 1, 2, 1]

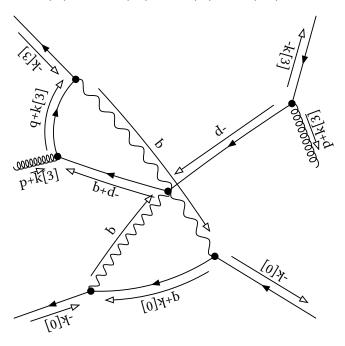
#### initial

Denominator:

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

Partial Fractioned Denominator:

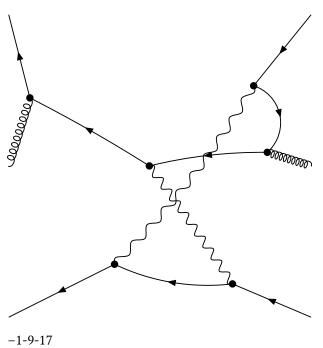
 $(dot[p,p]-2 \ dot[p,q]+dot[q,q])^-1 \ prop[0,k[3]]^-1 \ prop[0,q+k[3]]^-1 \ prop[0,-p-k[3]]^-1 \ dot[p,p]^-1$ 



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Denominator:

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



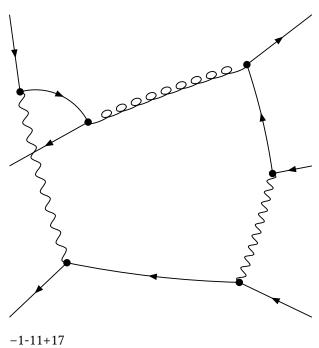
# embedding 35 [1, 2, -1, 0]

#### initial

Denominator:

Denominator:

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



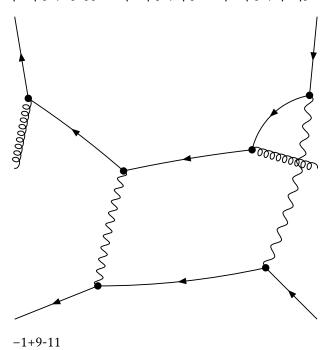
## embedding 36 [1, 2, -1, 1]

#### initial

Denominator:

Denominator:

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



# embedding 37 [1, 2, 0, 1]

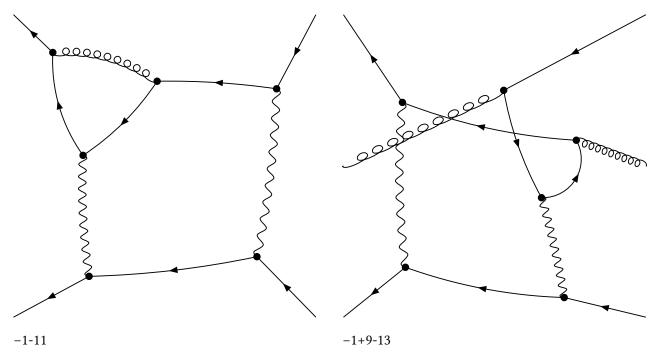
## initial

Denominator:

final

Denominator:

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



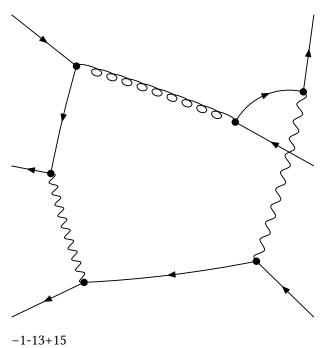
# embedding 38 [1, 2, 1, 0]

## initial

Denominator:

Denominator:

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



# embedding 39 [1, 2, 1, 1]

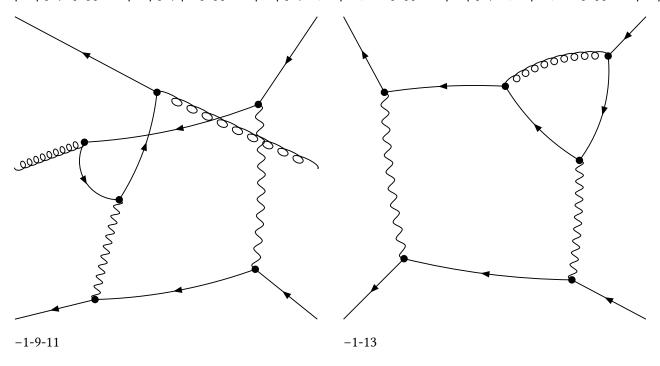
## initial

Denominator:

final

Denominator:

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



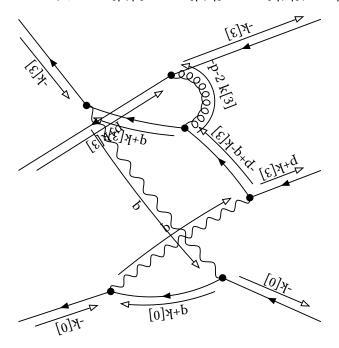
## embedding 40 [1, 2, 1, 2]

### initial

Denominator:

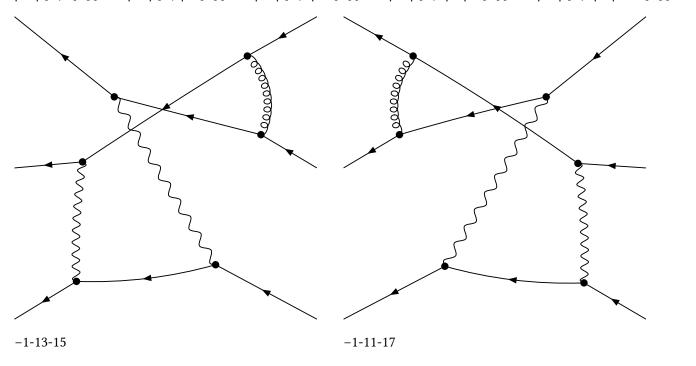
prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,-p-k[3]]^-1 prop[0,-p-2 k[3]]^-1 prop[0,-p+q-k[3]]^-1

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



Denominator:

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



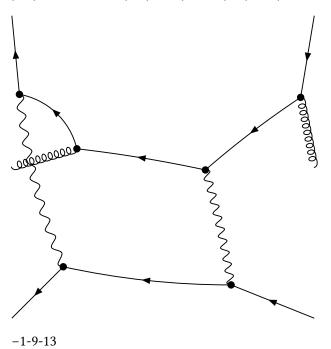
# embedding 41 [1, 2, 2, 1]

## initial

Denominator:

Denominator:

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



# embedding 42 [1, 3, 1, 2]

## initial

Denominator:

Denominator:

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

