embedding 1 [1, −1, −2, −1]

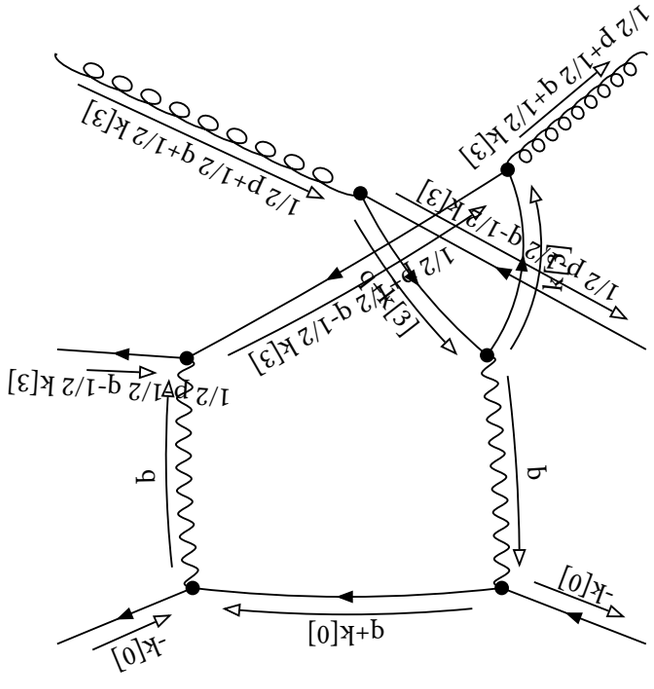
initial

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
```

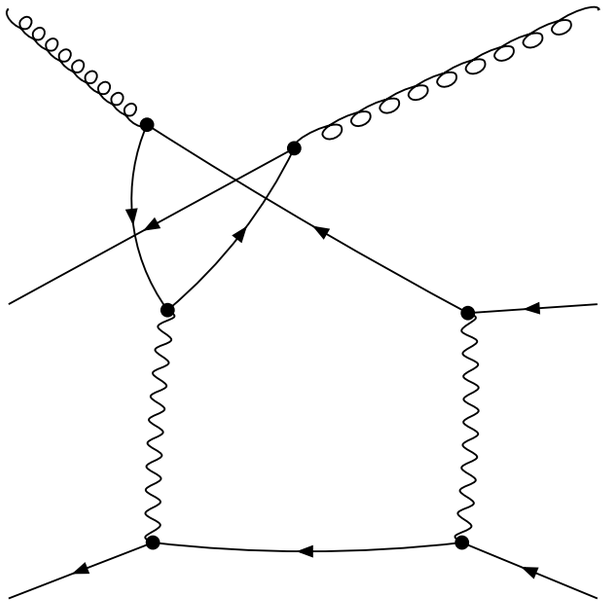
Partial Fractioned Denominator:

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



−3+10+16

final



−1+8+16

embedding 2 [1, −1, −1, −2]

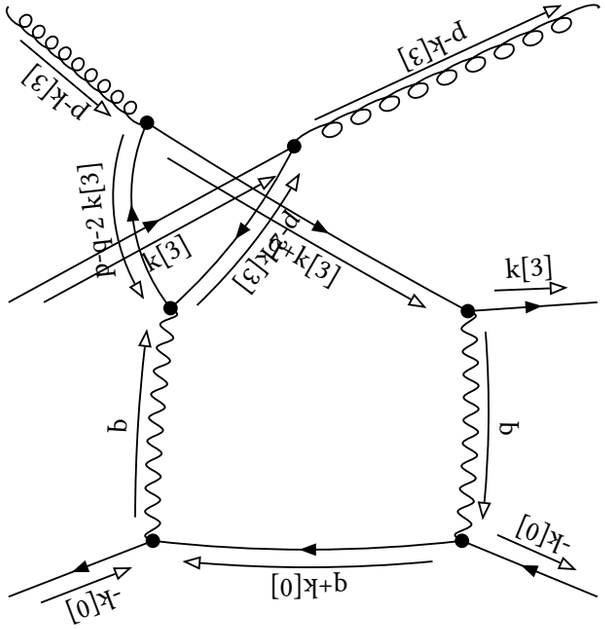
initial

Denominator:

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

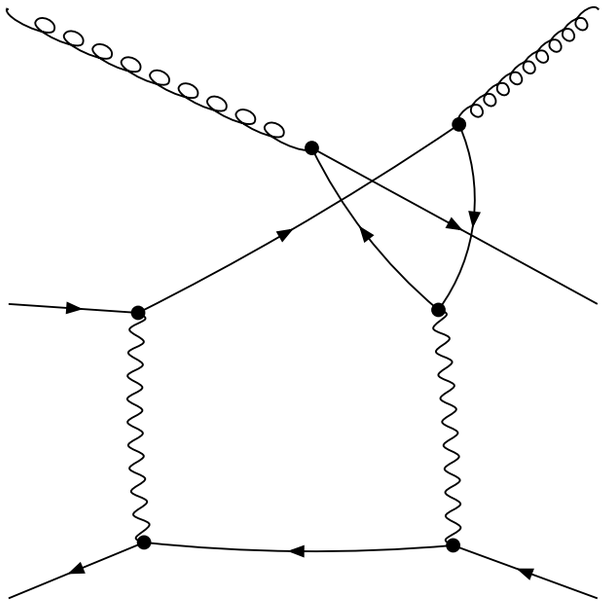
Partial Fractioned Denominator:

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



−3+13+16

final



−1+15+16

embedding 3 [1, −1, −1, −1]

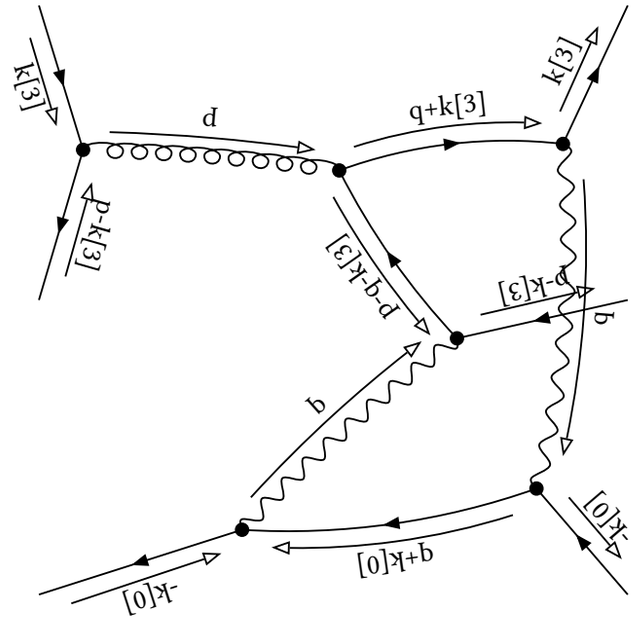
initial

Denominator:

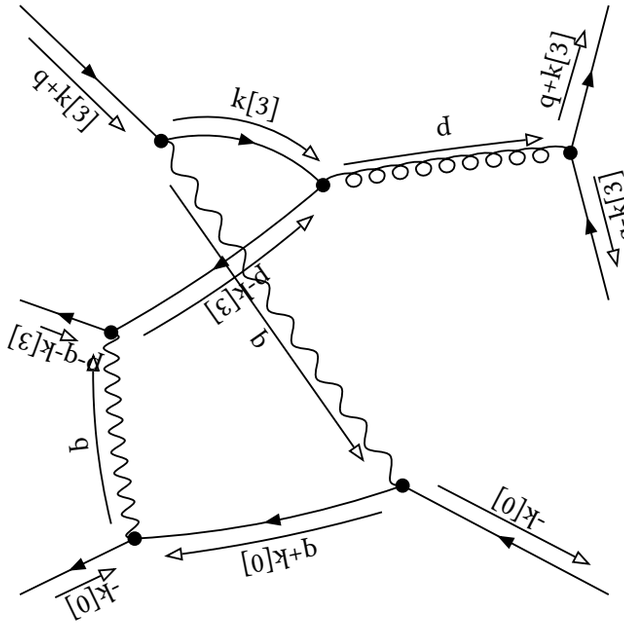
```
prop[0,p]^-1 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p-k[3]]^-1 prop[0,p-q-k[3]]^-1
```

Partial Fractioned Denominator:

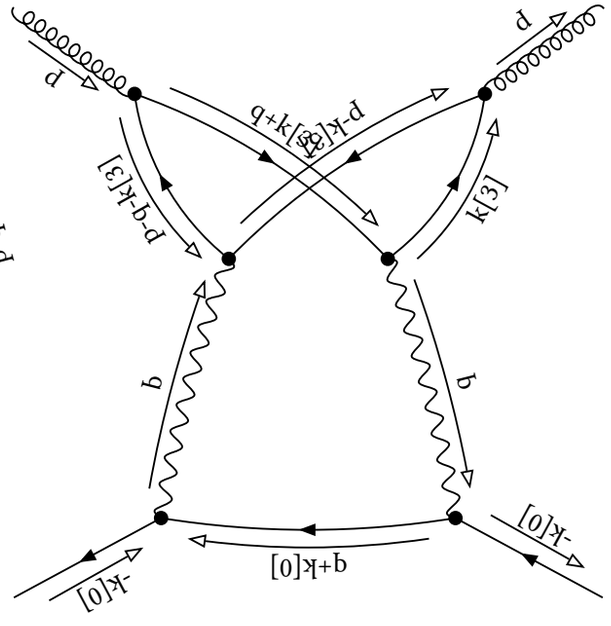
```
-1/2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p-k[3]]^-1 dot[p,p]^-1 dot[p,q]^-1
  +1/2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p-q-k[3]]^-1 dot[p,p]^-1 dot[p,q]^-1
  +1/2 prop[0,k[3]]^-1 prop[0,p-k[3]]^-1 prop[0,p-q-k[3]]^-1 dot[p,p]^-1 dot[p,q]^-1
  -1/2 prop[0,q+k[3]]^-1 prop[0,p-k[3]]^-1 prop[0,p-q-k[3]]^-1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



−3+8+13

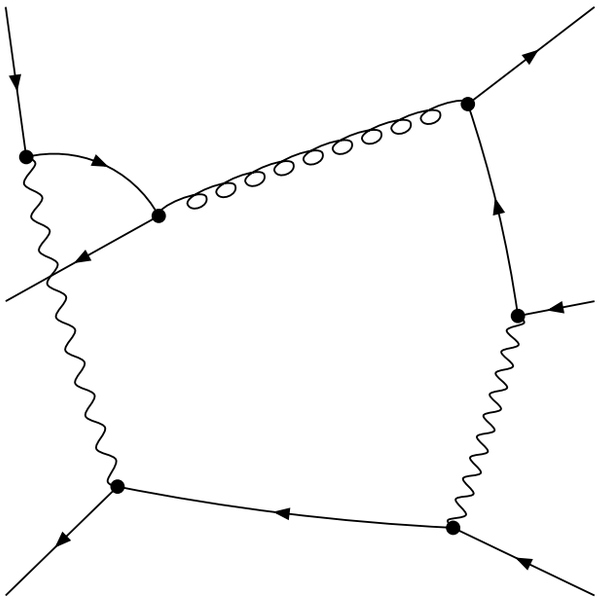


−3+10+15



−3+16

final



−1+8+15

embedding 4 [1, 0, −1, −1]

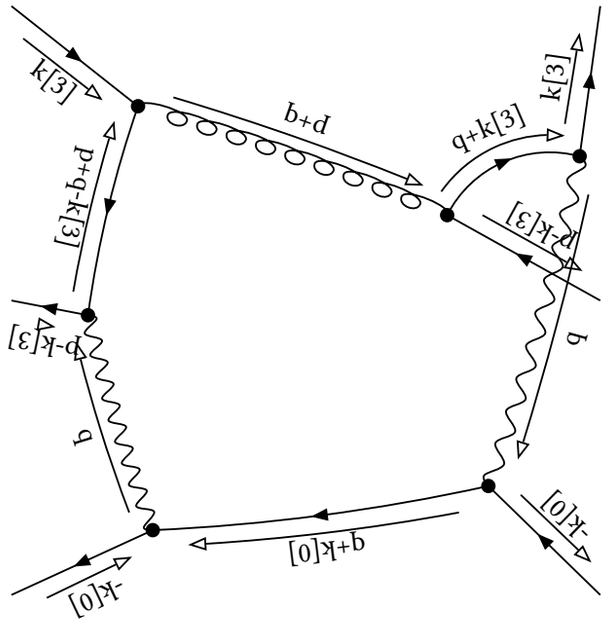
initial

Denominator:

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

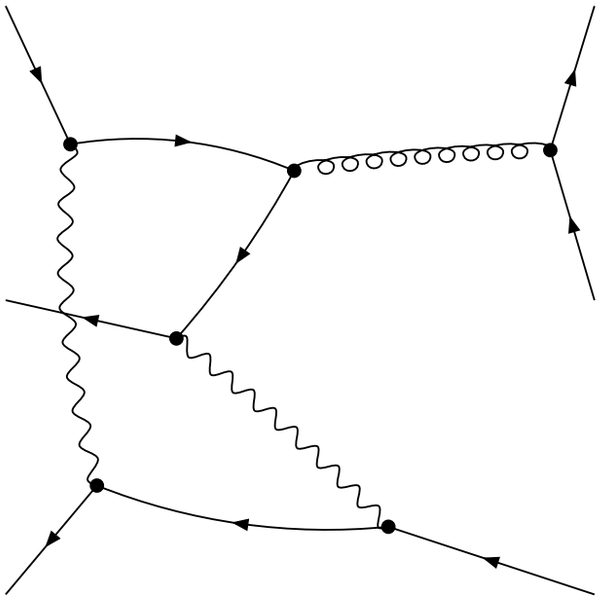
Partial Fractioned Denominator:

```
(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
```

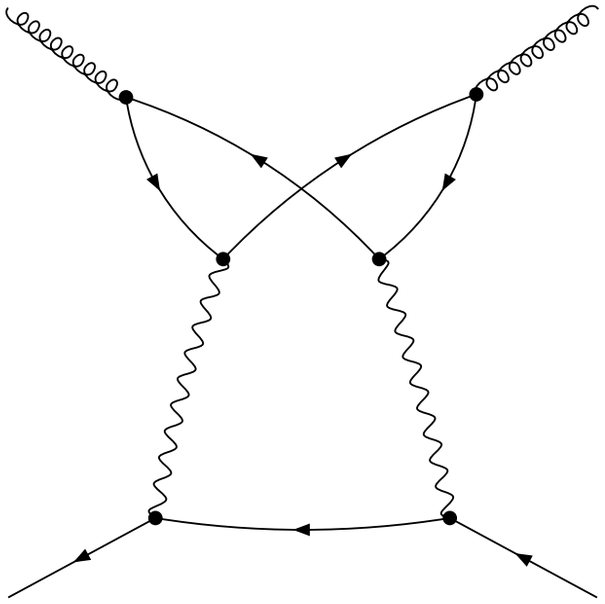


−3+10+13

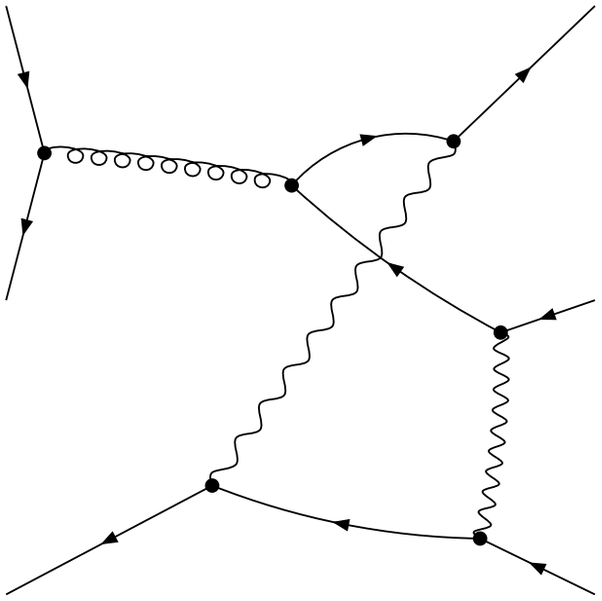
final



−1+10+15



−1+16



−1+8+13

embedding 5 [1, 0, −1, 0]

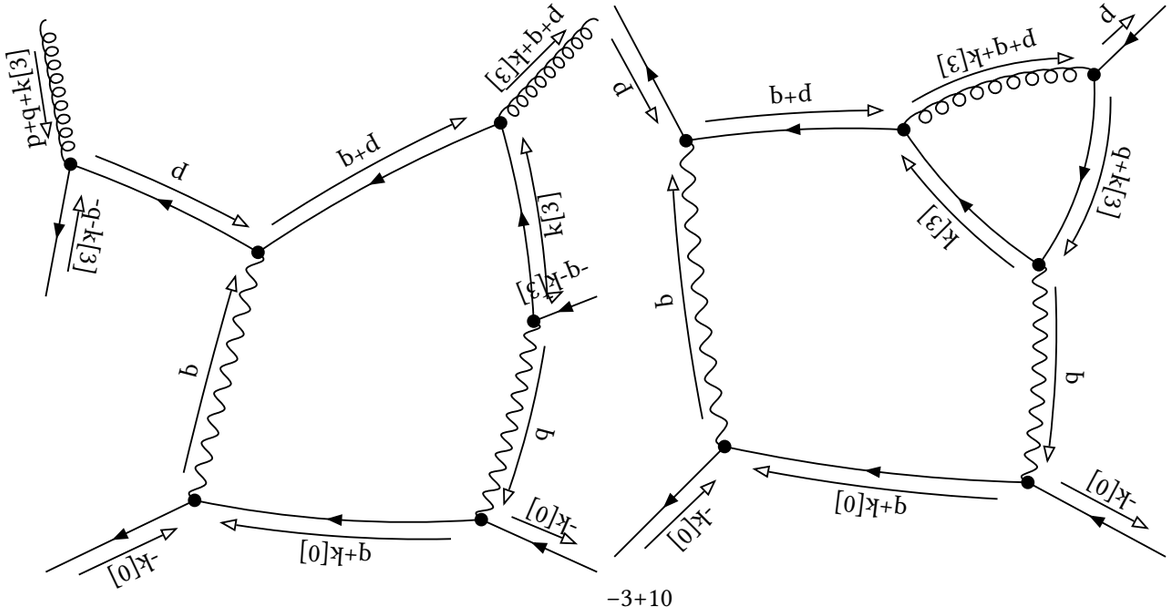
initial

Denominator:

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

Partial Fractioned Denominator:

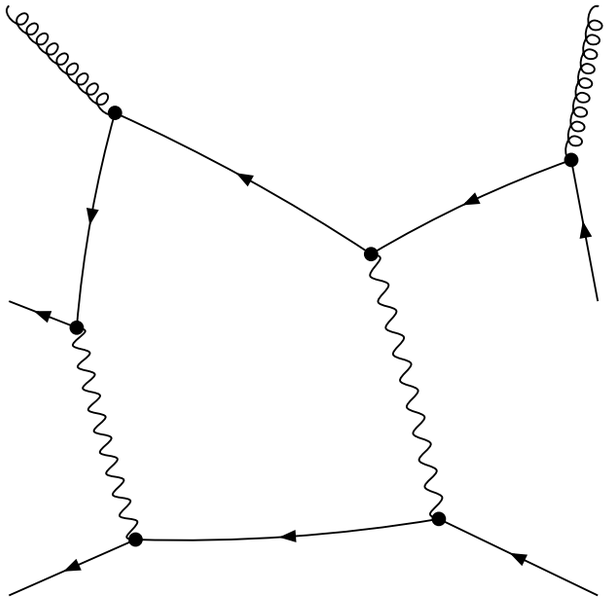
```
(dot[p,p]+2 dot[p,q]+dot[q,q])^-1 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p+q+k[3]]^-1 dot[p,p]^-1
```



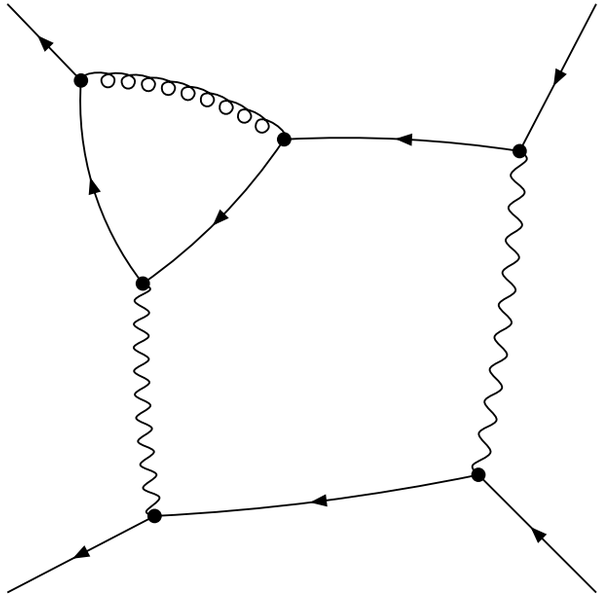
−3-15+16

−3+10

final



−1-13+16



−1+8

embedding 6 [1, 0, −1, 1]

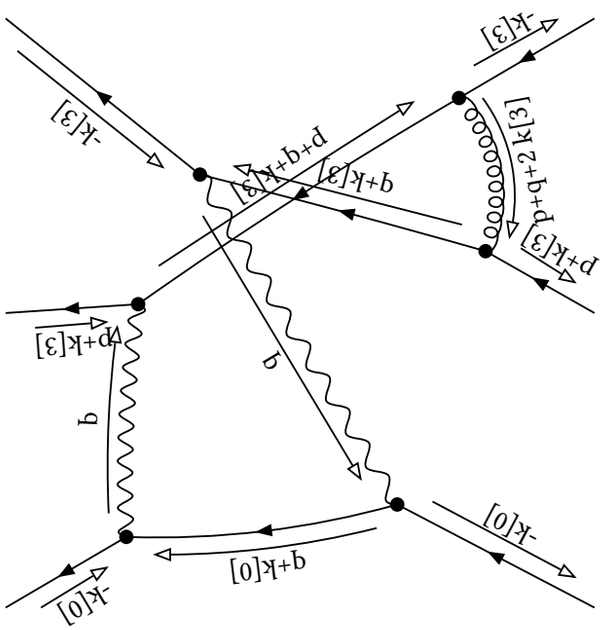
initial

Denominator:

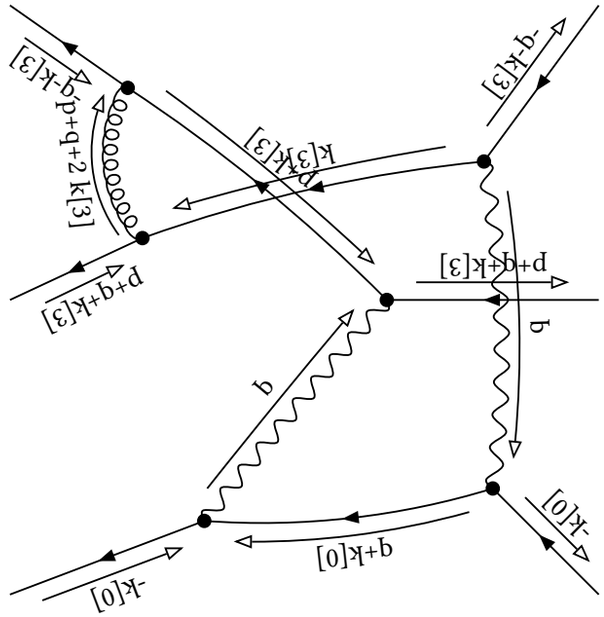
```
prop[0,k[3]]^-1 prop[0,p+k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,p+q+k[3]]^-1 prop[0,p+q+2 k[3]]^-1
```

Partial Fractioned Denominator:

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

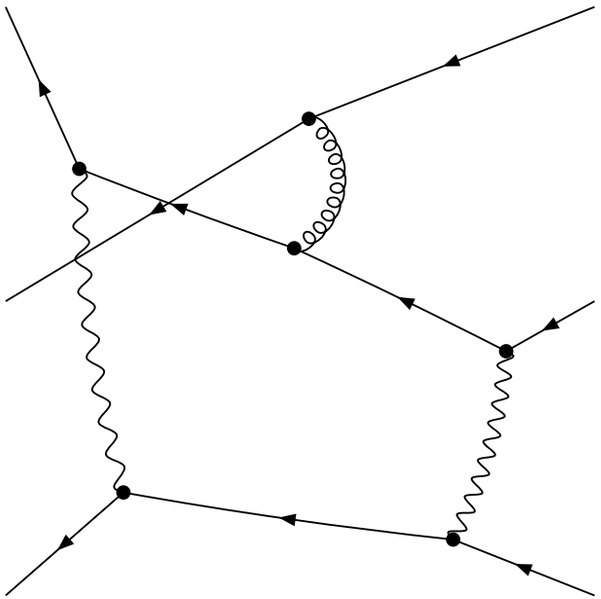


−3+10-13



−3+8-15

final



−1+8-13

embedding 7 [1, 0, 0, −1]

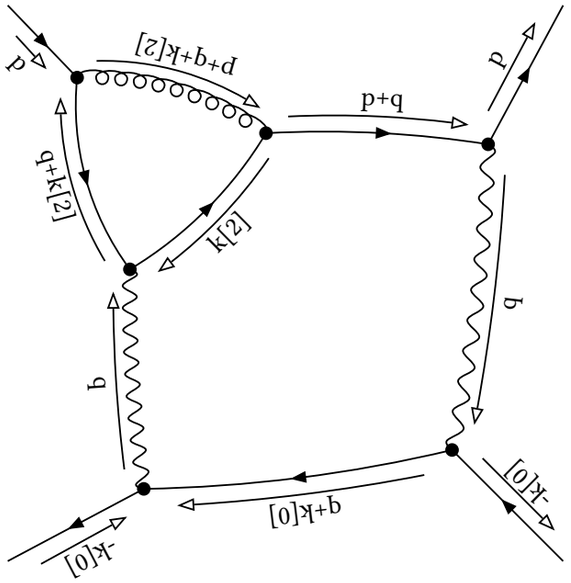
initial

Denominator:

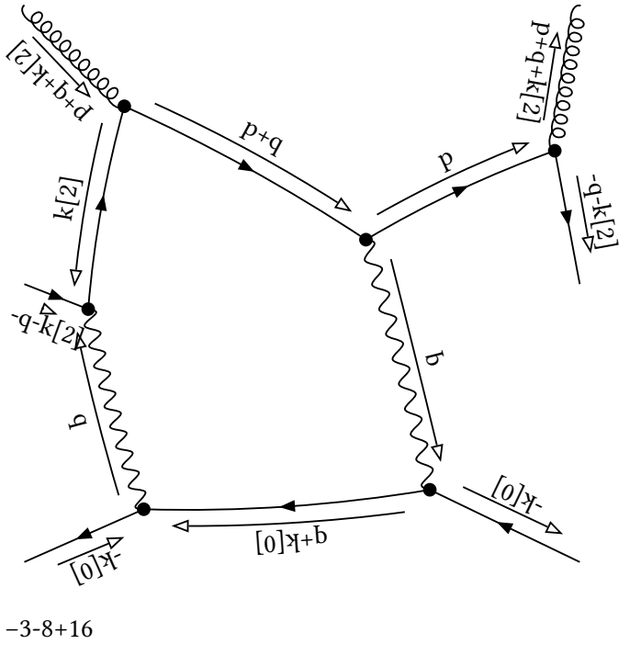
```
prop[0,p]^-1 prop[0,k[2]]^-1 prop[0,p+q]^-1 prop[0,q+k[2]]^-1 prop[0,p+q+k[2]]^-1
```

Partial Fractioned Denominator:

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

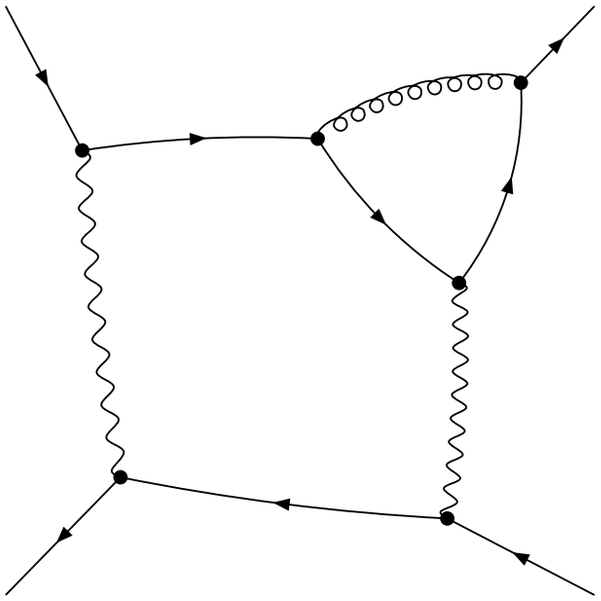


−3+13

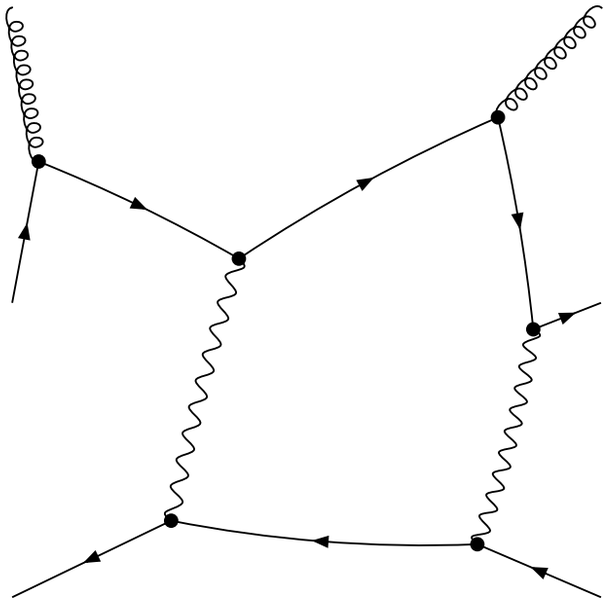


−3-8+16

final



−1+15



−1-10+16

embedding 8 [1, 0, 1, −1]

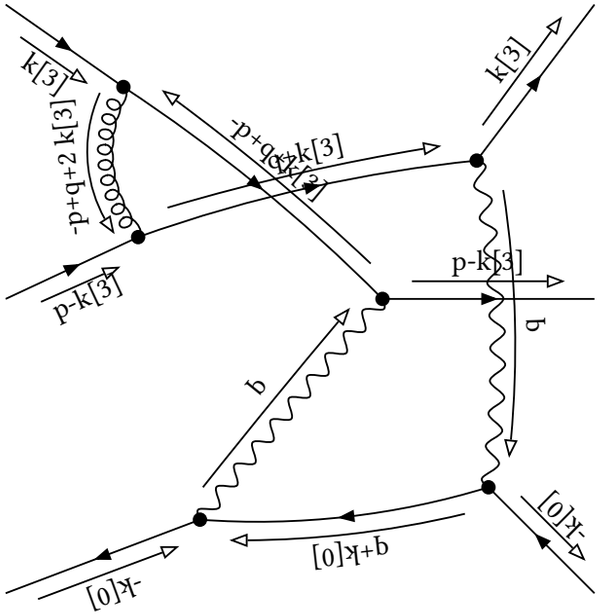
initial

Denominator:

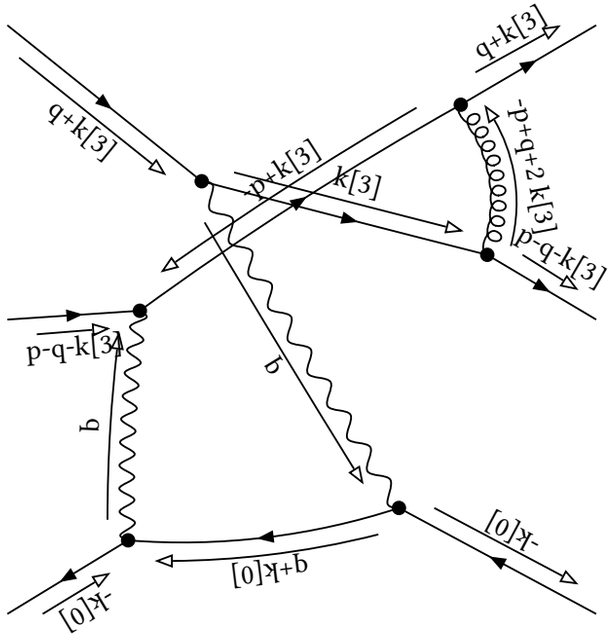
```
prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,-p+k[3]]^-1 prop[0,-p+q+k[3]]^-1 prop[0,-p+q+2 k[3]]^-1
```

Partial Fractioned Denominator:

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

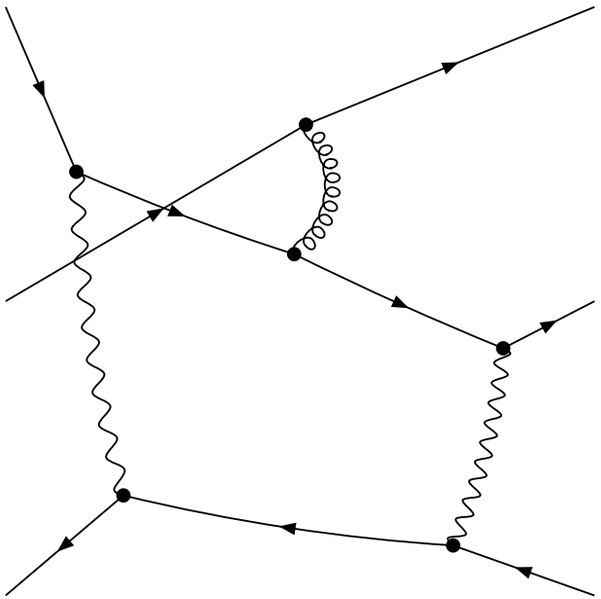


−3-10+13



−3-8+15

final



−1-10+15

embedding 9 [1, 1, −1, 1]

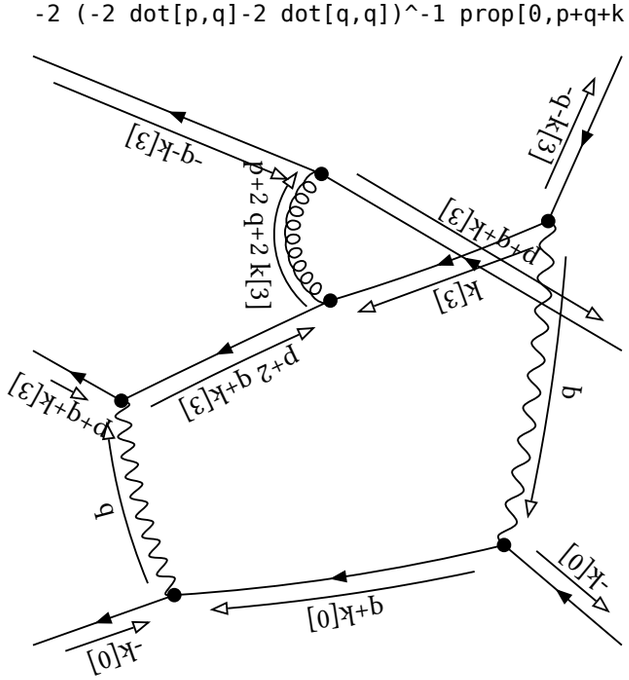
initial

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
```

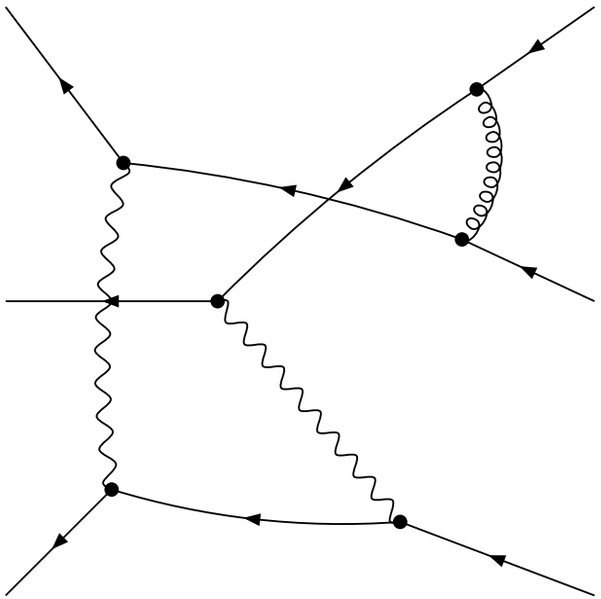
Partial Fractioned Denominator:

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

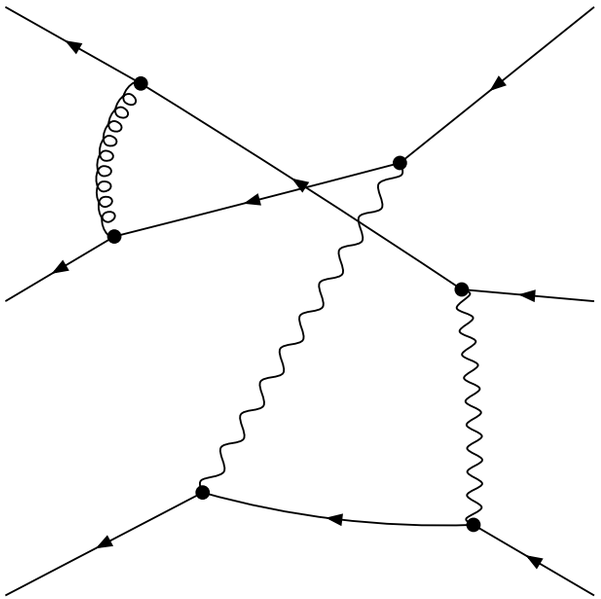


−3+10-15

final



−1+10-13



−1+8-15

embedding 10 [1, 1, 0, 1]

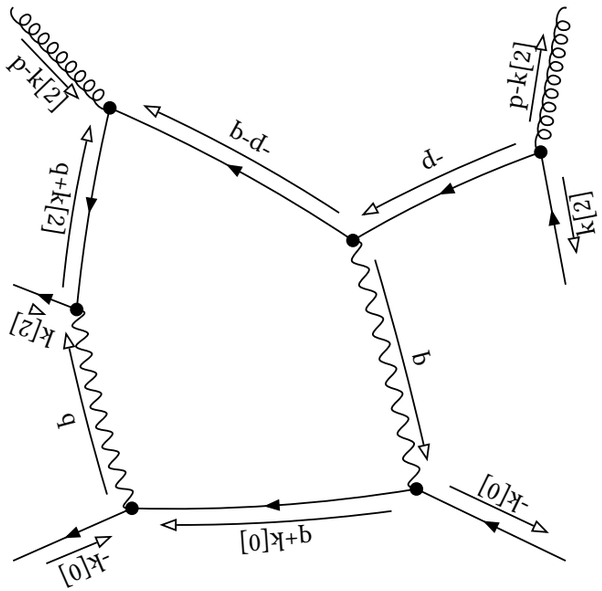
initial

Denominator:

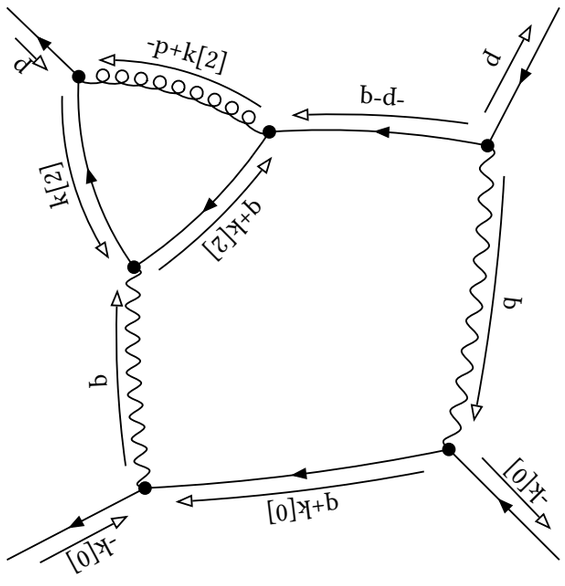
```
prop[0,k[2]]^-1 prop[0,-p]^-1 prop[0,q+k[2]]^-1 prop[0,-p+k[2]]^-1 prop[0,-p-q]^-1
```

Partial Fractioned Denominator:

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

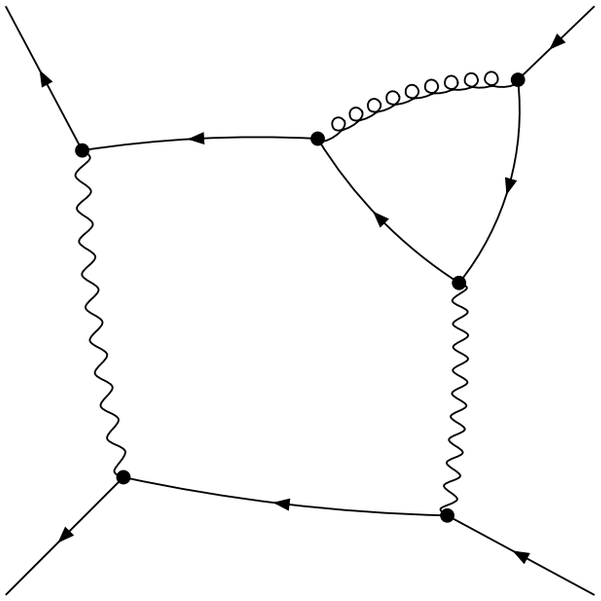


−3+10-16

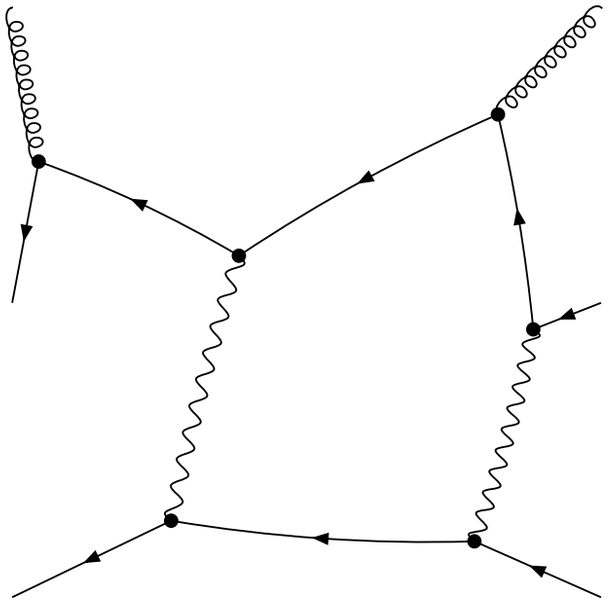


−3-15

final



−1-13



−1+8-16

embedding 11 [1, 1, 1, −1]

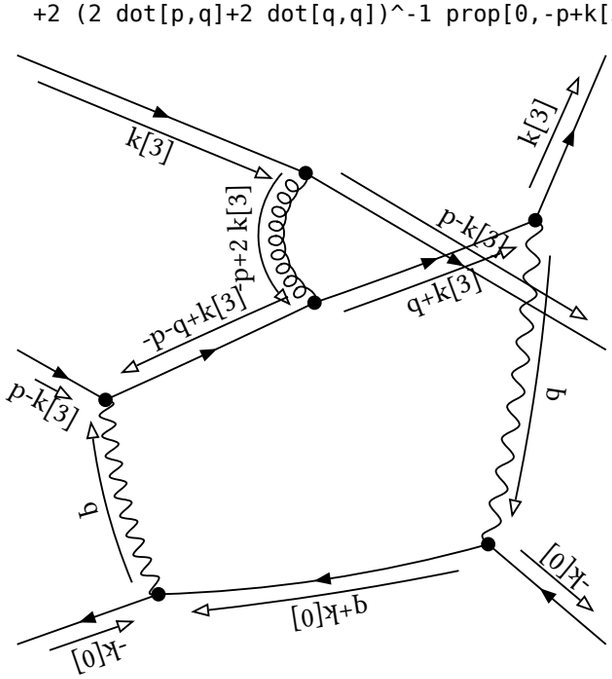
initial

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+k[3]]^-1
```

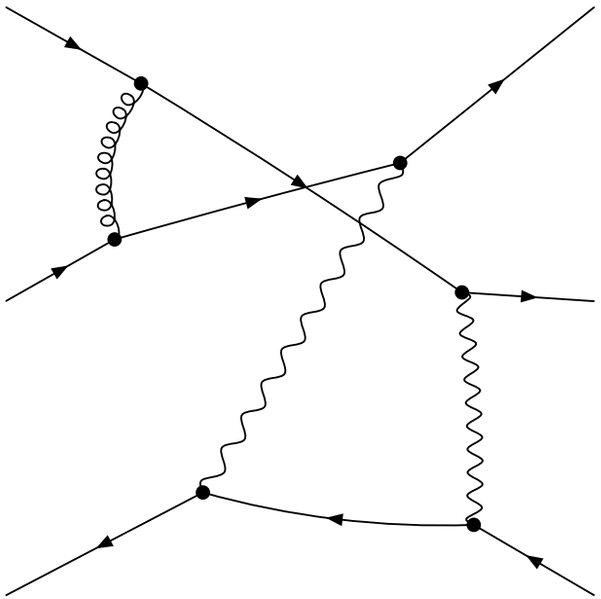
Partial Fractioned Denominator:

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

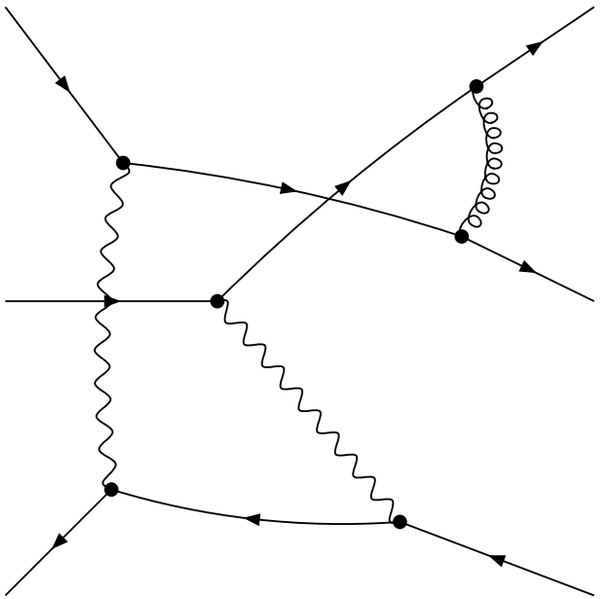


−3-8+13

final



−1-10+13



−1-8+15

embedding 12 [1, 1, 1, 0]

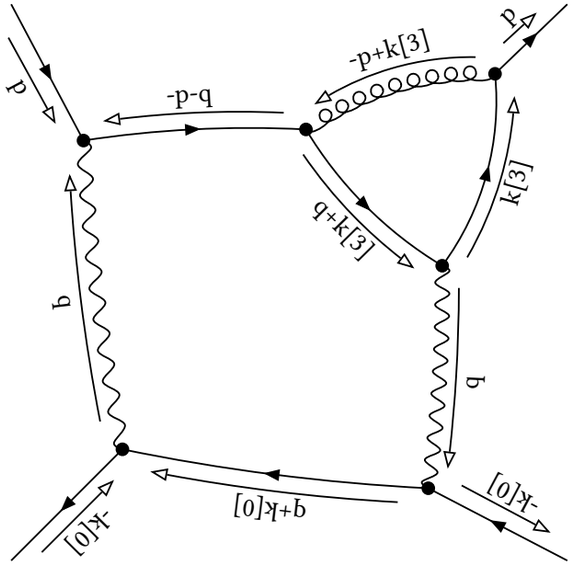
initial

Denominator:

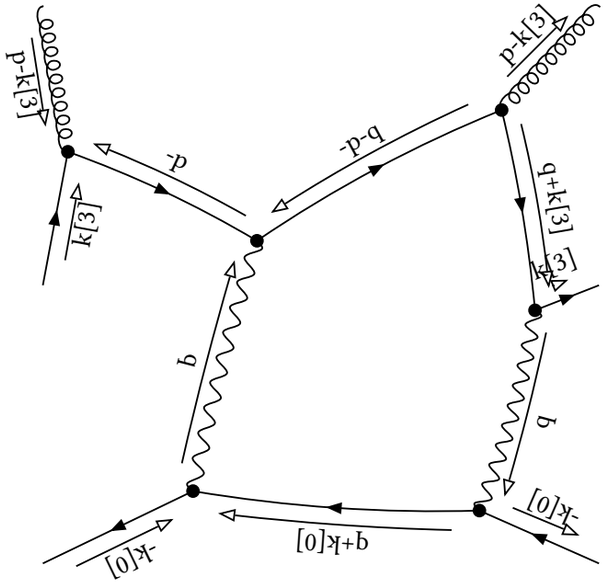
```
prop[0,k[3]]^-1 prop[0,-p]^-1 prop[0,q+k[3]]^-1 prop[0,-p+k[3]]^-1 prop[0,-p-q]^-1
```

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
```

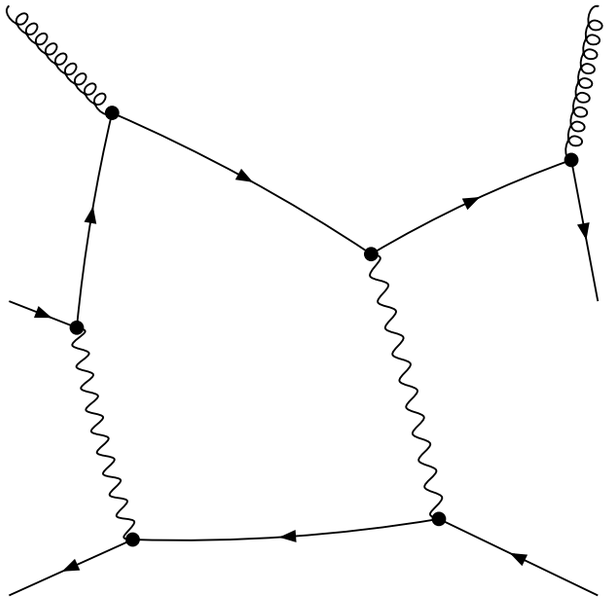


−3-8

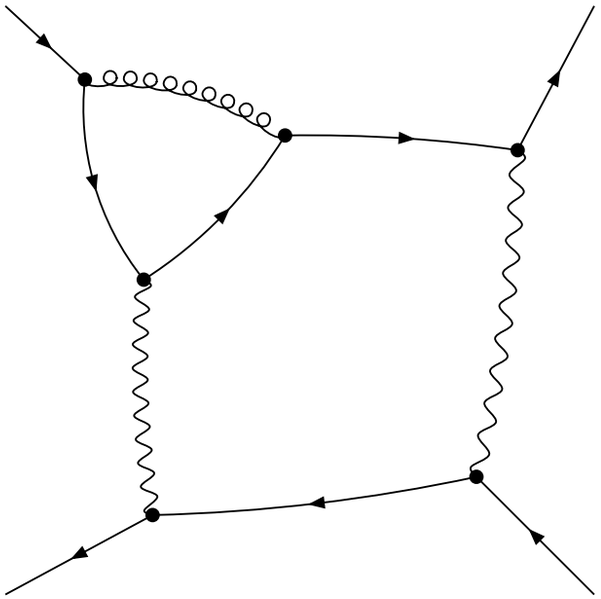


−3+13-16

final



−1+15-16



−1-10

embedding 13 [1, 1, 1, 1]

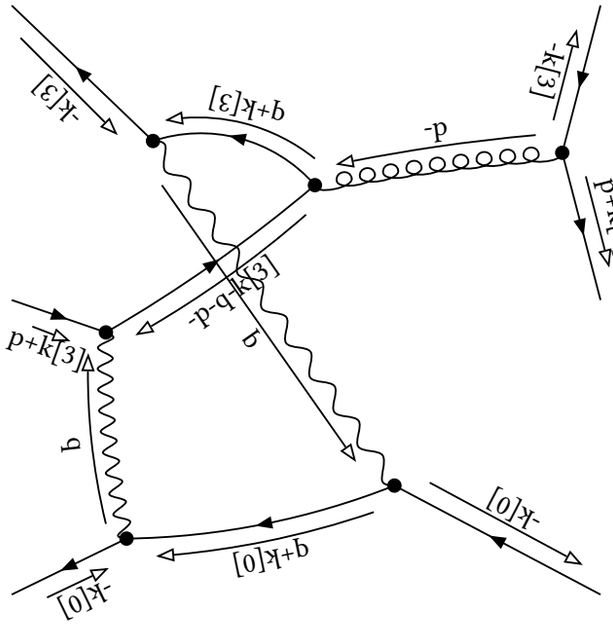
initial

Denominator:

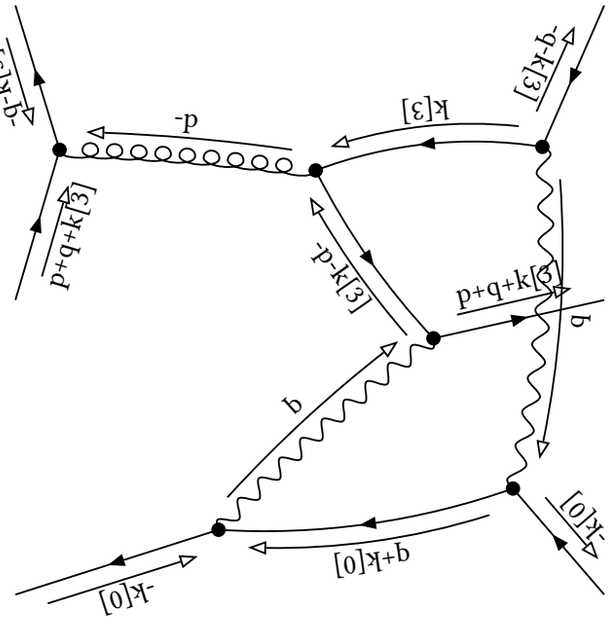
```
prop[0,k[3]]^-1 prop[0,-p]^-1 prop[0,q+k[3]]^-1 prop[0,-p-k[3]]^-1 prop[0,-p-q-k[3]]^-1
```

Partial Fractioned Denominator:

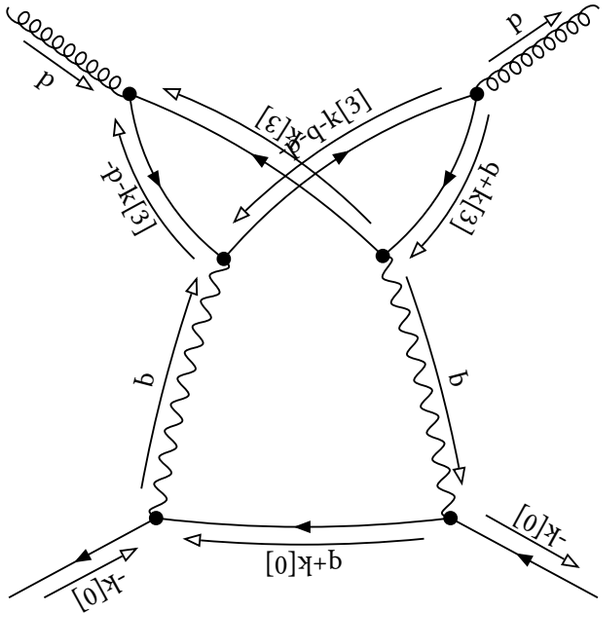
```
1/2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,-p-k[3]]^-1 dot[p,p]^-1 dot[p,q]^-1
  -1/2 prop[0,k[3]]^-1 prop[0,q+k[3]]^-1 prop[0,-p-q-k[3]]^-1 dot[p,p]^-1 dot[p,q]^-1
  -1/2 prop[0,k[3]]^-1 prop[0,-p-k[3]]^-1 prop[0,-p-q-k[3]]^-1 dot[p,p]^-1 dot[p,q]^-1
  +1/2 prop[0,q+k[3]]^-1 prop[0,-p-k[3]]^-1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



−3-8-13

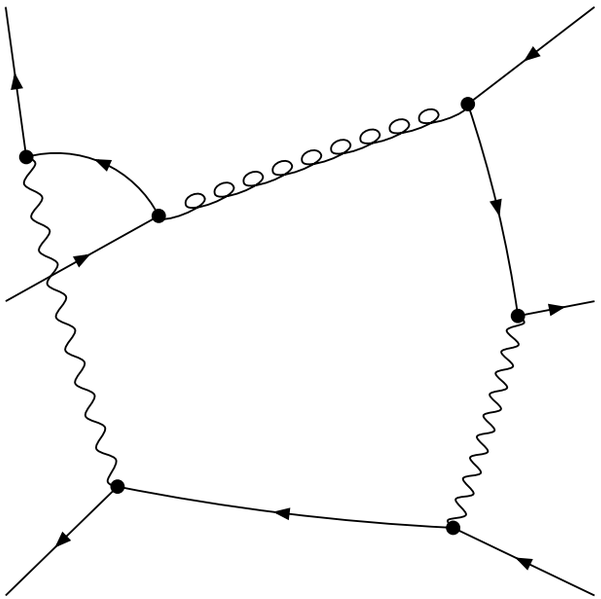


−3-10-15



−3-16

final



−1-10-13

embedding 14 [1, 2, 1, 1]

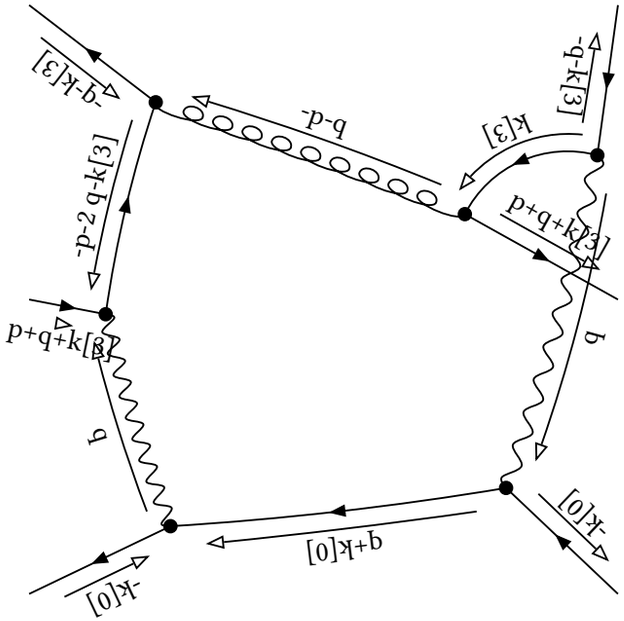
initial

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
```

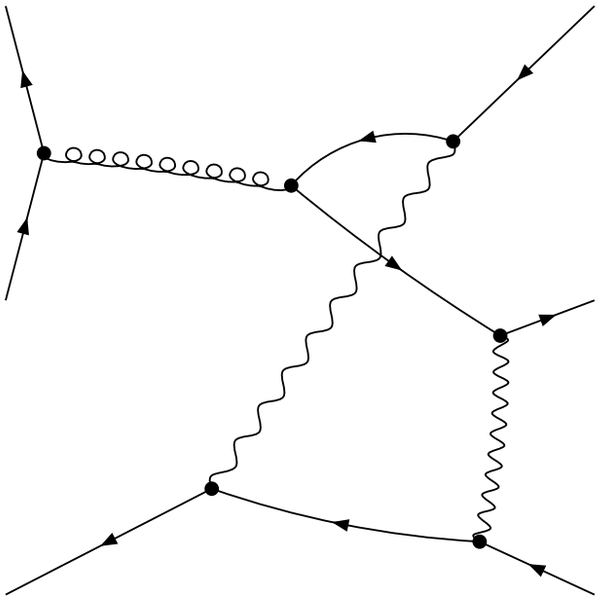
Partial Fractioned Denominator:

```
-(-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
```

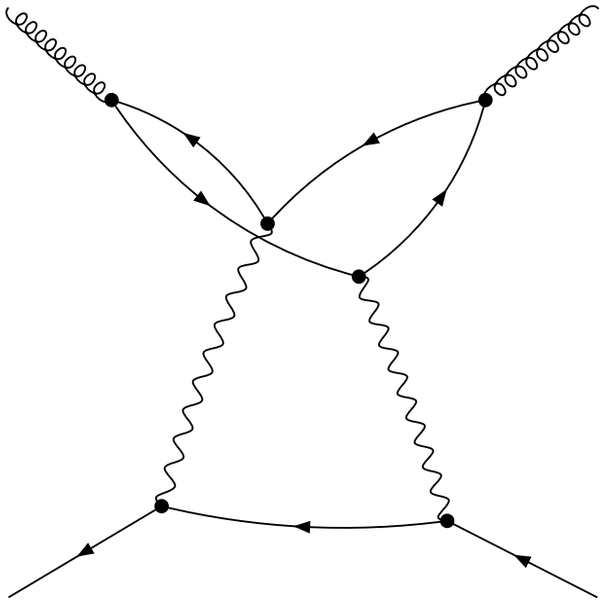


–3-8-15

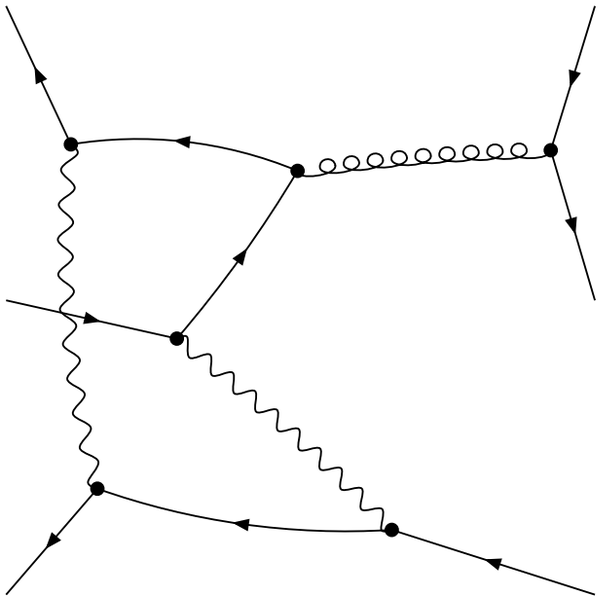
final



−1-10-15



−1-16



−1-8-13

embedding 15 [1, 2, 1, 2]

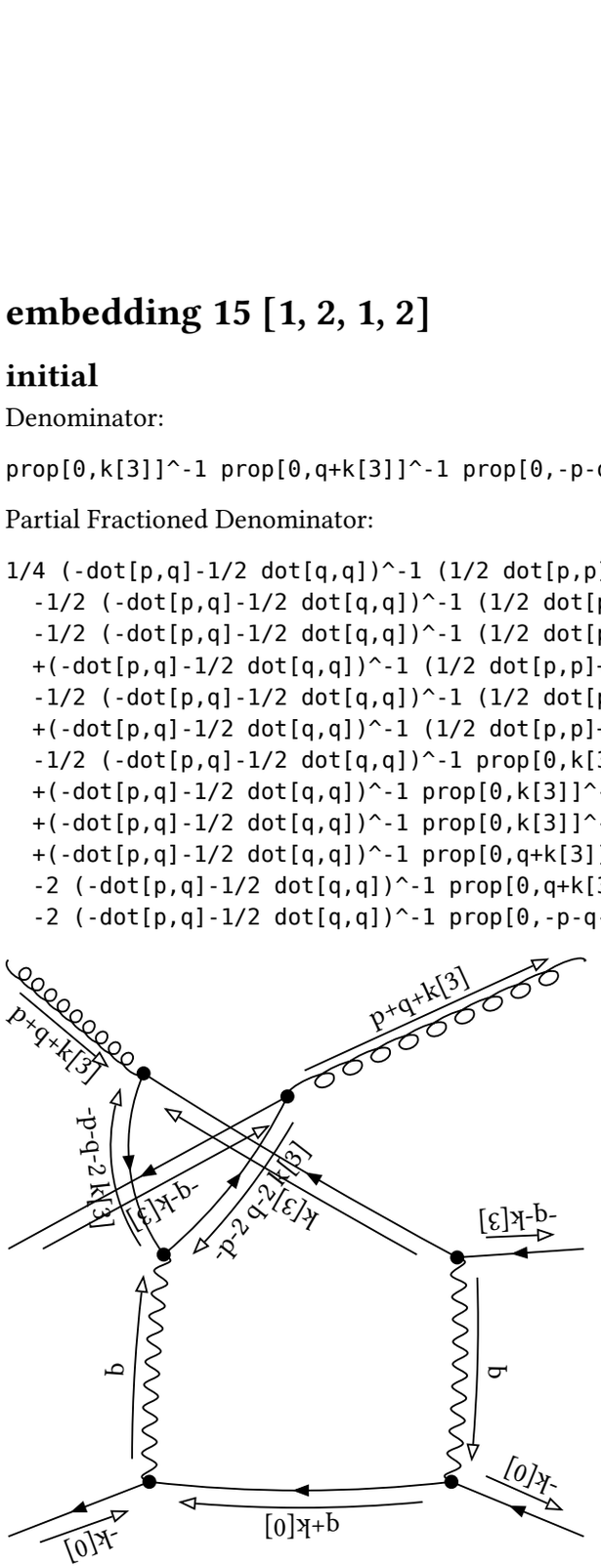
initial

Denominator:

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

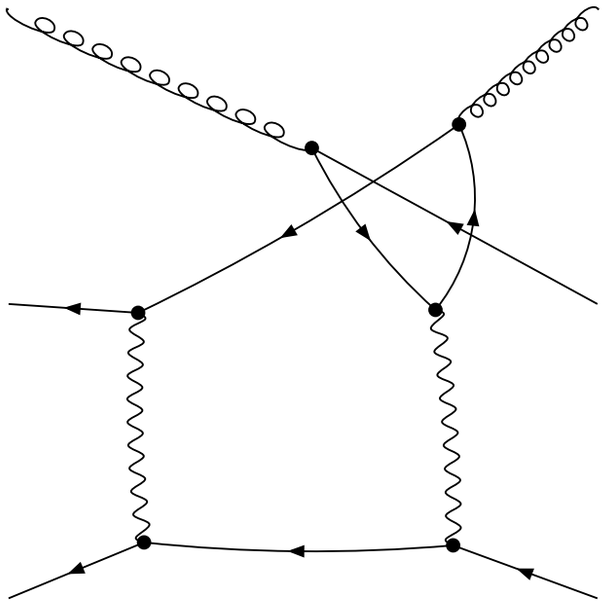
Partial Fractioned Denominator:

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



–3-15-16

final



–1-13-16

embedding 16 [1, 2, 2, 1]

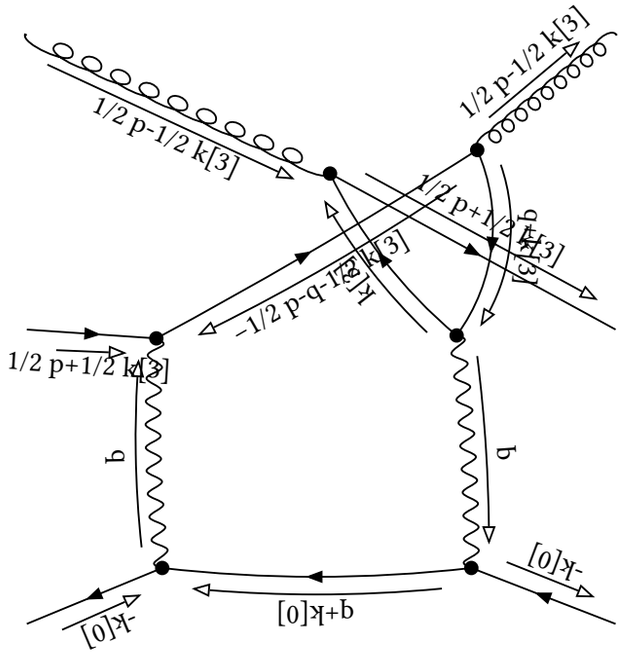
initial

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
```

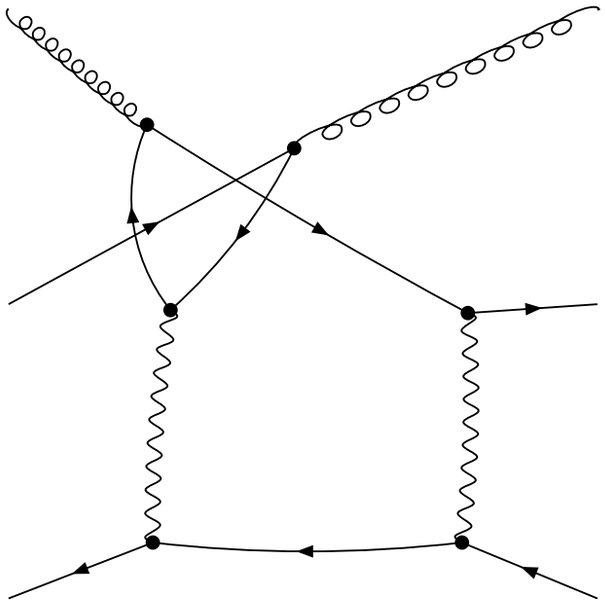
Partial Fractioned Denominator:

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



−3-8-16

final



–1-10-16