

**gfun[ratpolytocoeff]** - computes the  $n$ th coefficient of a rational function

### Calling Sequence

`ratpolytocoeff(f, x, n)`

### Parameters

`f` - rational function in `x`

`x, n` - names

### Description

- The procedure **ratpolytocoeff** computes the expression for the  $n$ -th coefficient of the Taylor expansion about the origin of `f` as a function of `x`.

### Examples

```
> with(gfun):  
ratpolytocoeff(1/(1-x-x^2), x, n);
```

$$\sum_{\alpha = \text{RootOf}(-1 + Z + Z^2)} \left( - \frac{\left( -\frac{1}{5} - \frac{2}{5} \alpha \right) \alpha^{-n}}{\alpha} \right) \quad (2.1)$$

### See Also

[gfun](#), [gfun\[parameters\]](#).