

```
syms x n
```

```
ans =  
2
```

```
f = pi - x
```

```
f =  $\pi - x$ 
```

```
int(f*cos(n*x),x,0,pi)
```

```
ans =
```

$$\frac{2 \sin\left(\frac{\pi n}{2}\right)^2}{n^2}$$

```
syms s
```

```
fbar = 1/((s-1)*s^2)
```

```
fbar =
```

$$\frac{1}{s^2 (s - 1)}$$

```
partfrac(fbar,s)
```

```
ans =
```

$$\frac{1}{s - 1} - \frac{1}{s} - \frac{1}{s^2}$$