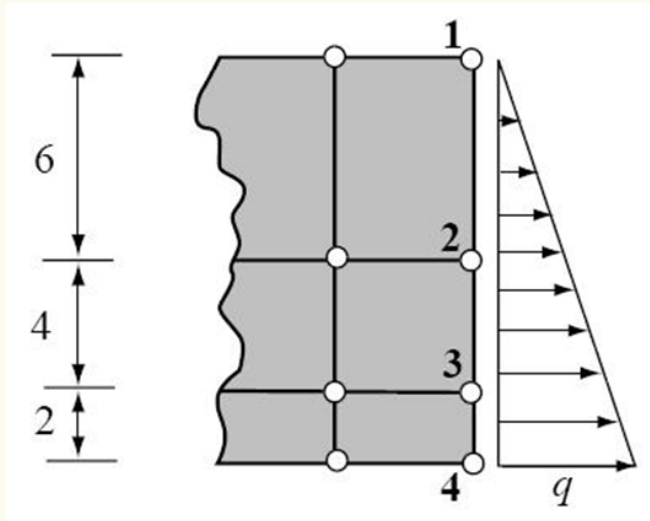■ METODO NbN

```
ClearAll[q]
```

```
q1 = 0;
q2 = (6 / 12) * q;
q3 = (10 / 12) * q;
q4 = q;
```

```
q12 = (q1 + q2) / 2;
q23 = (q2 + q3) / 2;
q34 = (q3 + q4) / 2;
```

```
f1 = 1 / 2 * q12 * 3
f1s = 1 / 2 * (q1 + q12) * 3
```
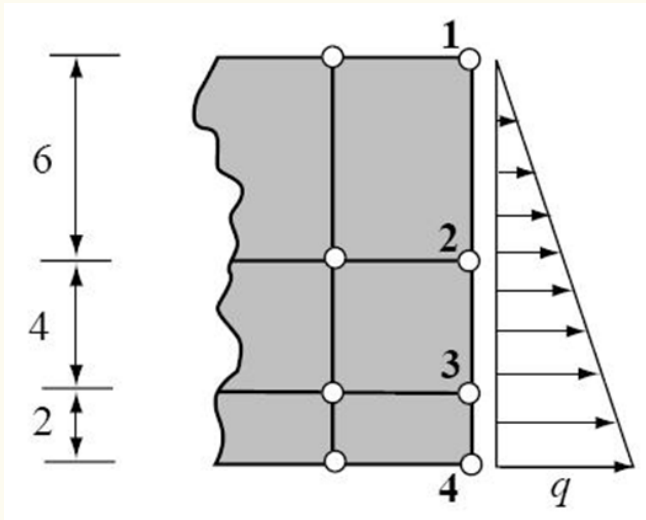
```
f2 = 1 / 2 * q23 * 8 - f1
f2s = (q12 + q23) * (3 + 2) / 2
```

```
f3 = 1 / 2 * q34 * 11 - 1 / 2 * q23 * 8
f3s = (q23 + q34) * (2 + 1) / 2
```

```
f4 = 1 / 2 * q4 * 12 - 1 / 2 * q34 * 11
f4s = (q34 + q4) * 1 / 2
```

```
f1 + f2 + f3 + f4 == 6 * q
```

```
True
```


- **METODO EbE**

```
Clear[f1, f2, f3, f4]
```

```
fe1 = 1 / 2 * (q1 + q2) * 6
fe2 = (q2 + q3) * 4 / 2
fe3 = (q3 + q4) * 2 / 2
```

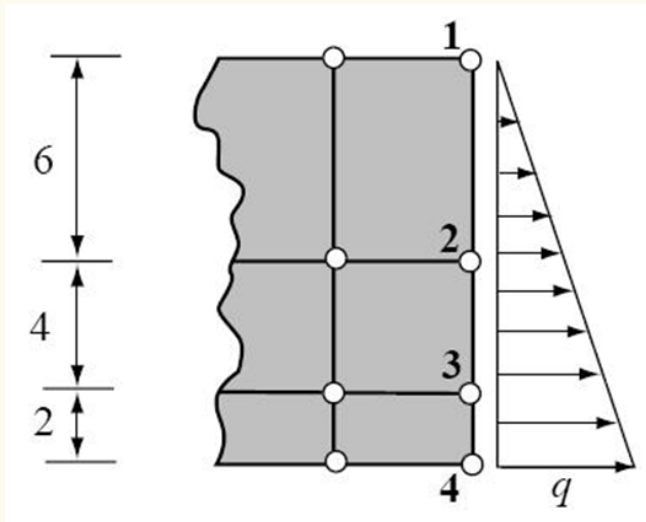$$f1 = fe1 * \left(\frac{1/3 * 6}{6}\right)$$

$$\frac{q}{2}$$

- **Altura de un trapecio. En este caso un paralelogramo y un triangulo.**

```
h23 = (4 * q2 * 1 / 2 * 4 + 1 / 2 * (q3 - q2) * 4 * 1 / 3 * 4) / (4 * q2 + 1 / 2 * (q3 - q2) * 4)
```

$$\frac{11}{6}$$

$$f2 = fe1 * \left(\frac{2/3*6}{6}\right) + fe2 * \left(\frac{11/6}{4}\right)$$

$$\frac{20\,q}{9}$$

$$h34 = (2*q3*1/2*2 + 1/2*(q4 - q3)*2*1/3*2) / (2*q3 + 1/2*(q4 - q3)*2)$$

$$\frac{32}{33}$$

$$4 - 11/6$$

$$\frac{13}{6}$$

$$f3 = fe2 * \left(\frac{13/6}{4}\right) + fe3 * \left(\frac{32/33}{2}\right)$$

$$\frac{7\,q}{3}$$

$$2 - 32/33$$

$$\frac{34}{33}$$

$$f4 = fe3 * \left(\frac{34/33}{2}\right)$$

$$\frac{17\,q}{18}$$

$$f1 + f2 + f3 + f4 == 6*q$$

True