

<https://math.stackexchange.com/questions/2704133/what-is-exponential-of-a-blade>

```
<< GA30`;
```

```
(*Verification of the factorization  
that I included in the answer to the above.*)
```

```
b = ( Bivector[1, 1, 2] + Bivector[1, 2, 3] + Bivector[1, 3, 1]) / Sqrt[3]
```

```
c = ((Vector[1, 1] + Vector[1, 2] + Vector[-2, 3]) / Sqrt[6]) **  
      (Vector[1, 2] + Vector[-1, 1]) / Sqrt[2]
```

```
d = ((Vector[1, 3] + Vector[-1, 2]) / Sqrt[2]) **  
      ((Vector[2, 1] + Vector[-1, 2] + Vector[-1, 3]) / Sqrt[6])
```

$$\frac{\mathbf{e}_{12}}{\sqrt{3}} + \frac{\mathbf{e}_{23}}{\sqrt{3}} + \frac{\mathbf{e}_{31}}{\sqrt{3}}$$

$$\frac{\mathbf{e}_{12}}{\sqrt{3}} + \frac{\mathbf{e}_{23}}{\sqrt{3}} + \frac{\mathbf{e}_{31}}{\sqrt{3}}$$

$$\frac{\mathbf{e}_{12}}{\sqrt{3}} + \frac{\mathbf{e}_{23}}{\sqrt{3}} + \frac{\mathbf{e}_{31}}{\sqrt{3}}$$

```
b - c
```

```
b - d
```

```
0
```

```
0
```