

A somewhat random seeming complex exponential evaluation using CliffordBasic, and an R3 bivector argument.

```
<< CliffordBasic`;  
$SetSignature = {3, 0};  
  
ClearAll[ a, b, c, angle, exp, r ]  
exp[ t_ ] := Module[ {abs},  
  abs = Sqrt[-GeometricProduct[t, t]];  
  Cos[ abs ] + (t / abs) Sin[ abs ]];  
r[ t_ ] := GeometricProduct[ e[3], exp[ t ] ];  
a = r[ e[3, 1] Pi / 4 ]  
b = r[ e[3, 2] Pi / 4 ]  
c = GeometricProduct[ a, b ] // Simplify  
j = (e[1, 2] + e[1, 3] - e[2, 3]) / Sqrt[3];  
exp[ j Pi / 3 ] - c // Simplify  
(*angle = exp[ e[1,2] Pi (-1/3 + 1/6) ]  
  iangle = MultivectorInverse[angle] // Simplify  
  GeometricProduct[ c, iangle ] *)
```

$$\frac{e[1]}{\sqrt{2}} + \frac{e[3]}{\sqrt{2}}$$

$$\frac{e[2]}{\sqrt{2}} + \frac{e[3]}{\sqrt{2}}$$

$$\frac{1}{2} (1 + e[1, 2] + e[1, 3] - e[2, 3])$$

0