Some R2 complex exponential calculations using CliffordBasic.

```
<< CliffordBasic`;
$SetSignature = {2, 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[1], exp[t ] ];
a =  r[e[1, 2] Pi / 3]
b  =  r[e[1, 2] Pi / 6]
c = GeometricProduct[ a, b] // Simplify
angle = exp[ e[1, 2] Pi (-1 / 3 + 1 / 6)]
iangle = MultivectorInverse[angle] // Simplify
GeometricProduct[ c, iangle ]
```

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

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

$$\frac{1}{2}\left(\sqrt{3} - e[1, 2]\right)$$

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

$$\frac{1}{2}\left(\sqrt{3} + e[1, 2]\right)$$

$$1$$

```
{Cos[Pi / 3], Sin[Pi / 3]}
{Cos[Pi / 6], Sin[Pi / 6]}
```

$$\left\{\frac{1}{2}, \frac{\sqrt{3}}{2}\right\}$$

$$\left\{\frac{\sqrt{3}}{2}, \frac{1}{2}\right\}$$