

```
function qout = quat_mul(q1, q2)

w1 = q1(1); v1 = q1(2:4);
w2 = q2(1); v2 = q2(2:4);
w = w1*w2 - dot(v1, v2);
v = w1*v2 + w2*v1 + cross(v1, v2);
qout = [w; v];
end
```