

2.22
1

$$2g\alpha - g^3\alpha - \cos 5\alpha \stackrel{?}{=} 16g^3\alpha \sin^2\alpha$$

$$2g\alpha - 2g^4\alpha g\alpha \stackrel{?}{=} 16g^3\alpha \sin^2\alpha$$

$$2g\alpha(1 - g^4\alpha) \stackrel{?}{=} 16g^3\alpha \sin^2\alpha$$

$$2g\alpha(1 - 2g^2\alpha + 1)$$

$$2g\alpha(1 - 1 + 2\sin^2 2\alpha) \stackrel{?}{=} 16g^3\alpha \sin^2\alpha$$

$$4g\alpha \sin^2 2\alpha \stackrel{?}{=} 16g^3\alpha \sin^2\alpha$$

$$4g\alpha(4\sin^2\alpha g^2\alpha) = 16g^3\alpha \sin^2\alpha$$