



1

$f(x) = x^4 + (-2a^2)x^2 + a^4$

2

$g(x) = cf(x)$

3

$c = \frac{a\sqrt{3}}{a^4}$

= 0.0679617697939

4

$a = \sqrt{\frac{15}{\sqrt{3}}}$

= 2.94283095638

5

$2 \int_0^a g(x) dx - a^2 \sqrt{3}$

$$= 1$$