

Full name(s): _____ .

Questions

1. Evaluate each of the following trigonometric integrals.

(a) $\int_0^\pi \sin^2(2\theta) d\theta$

(b) $\int \sin^3(x) dx$

(c) $\int_0 \tan^6(x) \sec^4(x) dx$

(d) $\int \sec^6(x) dx$

(e) $\int \frac{x^2}{\sqrt{x^2-9}} dx$

(f) $\int_1^2 \frac{x^5}{\sqrt{x^2+2}} dx$

(g) $\int \sqrt{1-4x^2}$

(h) $\int \frac{1}{9+x^2} dx$

(i) $\int \frac{1}{25+4x^2} dx$

(j) $\int_{-2}^2 \frac{du}{\sqrt{25-u^2}}$

(k) $\int \frac{ds}{s\sqrt{s^2-4}}$