

Wk 7 - Integration homework

Date _____ Period _____

Evaluate each indefinite integral.

1) $\int \frac{9x^2}{\sqrt{4-9x^6}} dx$

2) $\int \frac{3x^2}{x^3\sqrt{x^6-25}} dx$

3) $\int \frac{8x}{4x^2\sqrt{16x^4-25}} dx$

4) $\int \frac{6x}{4+9x^4} dx$

5) $\int \frac{12x^3}{\sqrt{9-9x^8}} dx$

6) $\int \frac{6x^2}{4+4x^6} dx$

Answers to Wk 7 - Integration homework (ID: 1)

$$1) \sin^{-1} \frac{3x^3}{2} + C$$

$$2) \frac{1}{5} \cdot \sec^{-1} \frac{|x^3|}{5} + C$$

$$3) \frac{1}{5} \cdot \sec^{-1} \frac{|4x^2|}{5} + C$$

$$4) \frac{1}{2} \cdot \tan^{-1} \frac{3x^2}{2} + C$$

$$5) \sin^{-1} \frac{3x^4}{3} + C$$

$$6) \frac{1}{2} \cdot \tan^{-1} \frac{2x^3}{2} + C$$