

8.4 Trigonometric Substitution

Name:

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P 22. Find the indefinite integral.

$$\int \frac{x^2}{\sqrt{36 - x^2}} dx$$

P 24. Find the indefinite integral.

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

P 26. Find the indefinite integral.

$$\int \frac{\sqrt{25x^2 + 4}}{x^4} dx$$

P 31. Find the indefinite integral.

$$\int e^x \sqrt{1 - e^{2x}} dx$$

P 67. Find the surface area of the solid generated by revolving the region bounded by the graphs of $y = x^2$, $y = 0$, $x = 0$, and $x = \sqrt{2}$ about the x -axis.

P 74. Find the area of the region enclosed by two circles of radius 3, with centers at $(-2, 0)$ and $(2, 0)$.