



Solución

$$\int 2x\sqrt{2-x^2} dx = -\frac{2}{3}(2-x^2)^{\frac{3}{2}} + C$$

Pasos

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

Sacar la constante: $\int a \cdot f(x) dx = a \cdot \int f(x) dx$

$$= 2 \cdot \int x\sqrt{2-x^2} dx$$

Aplicar integración por sustitución

Mostrar pasos

$$= 2 \cdot \int -\frac{\sqrt{u}}{2} du$$

Sacar la constante: $\int a \cdot f(x) dx = a \cdot \int f(x) dx$

$$= 2 \left(-\frac{1}{2} \cdot \int \sqrt{u} du \right)$$

Aplicar la regla de la potencia

Mostrar pasos

$$= 2 \left(-\frac{1}{2} \cdot \frac{2}{3} u^{\frac{3}{2}} \right)$$

Sustituir en la ecuación $u = 2 - x^2$

$$= 2 \left(-\frac{1}{2} \cdot \frac{2}{3} (2-x^2)^{\frac{3}{2}} \right)$$

Simplificar $2 \left(-\frac{1}{2} \cdot \frac{2}{3} (2-x^2)^{\frac{3}{2}} \right)$: $-\frac{2}{3} (2-x^2)^{\frac{3}{2}}$

Mostrar pasos

$$= -\frac{2}{3} (2-x^2)^{\frac{3}{2}}$$

Agregar una constante a la solución

$$= -\frac{2}{3} (2-x^2)^{\frac{3}{2}} + C$$

This website uses cookies to ensure you get the best experience.

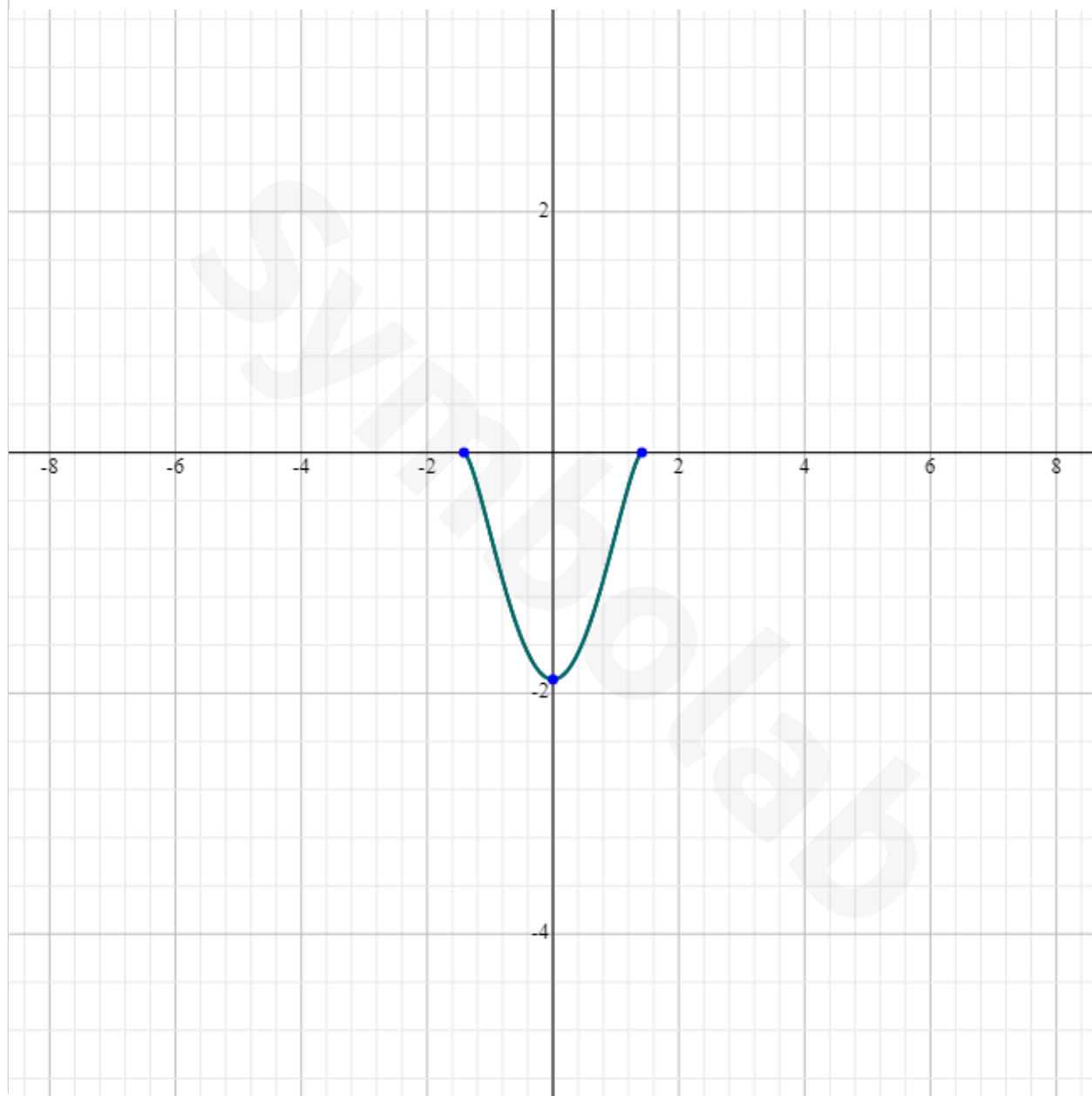
By using this website, you agree to our Cookie Policy.

[Learn more](#)

Accept

Gráfica

Graficando: $-\frac{2}{3}(2-x^2)^{\frac{3}{2}} + C$ asumiendo $C = 0$



This website uses cookies to ensure you get the best experience.

By using this website, you agree to our Cookie Policy.

[Learn more](#)

Accept