

FINAL ANSWERS

TRY THESE

$$1. \int_0^2 \frac{1}{(2x-3)^3} dx = -\frac{2}{9}$$

$$2. \int \frac{\sin \sqrt{x}}{\sqrt{x}} dx = -2 \cos \sqrt{x} + C$$

3. Evaluate $\int \frac{\sin x}{\cos^2 x} dx$ in two ways. First by rewriting and then by using u -substitution. Do you get the same answer?

$$= \sec x + C \quad (\text{both ways})$$

$$4. \int_1^3 \frac{(x^2-1)^2}{x^2} dx = 4$$

$$5. \int \cos^3(5t) \sin(5t) dt = -\frac{1}{20} \cos^4(5t) + C$$

$$6. \int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \frac{\sin x}{1-x^4+3x^6} dx = 0$$

$$7. \text{ This one has an extra twist. Can you figure out the puzzle? } \int_0^{2\sqrt{3}} \frac{x^3}{\sqrt{4+x^2}} dx = \frac{32}{3}$$