

$$1. \int \frac{2}{(2t-1)^2 + 4} dt =$$

$$2. \int \sec 3x \tan 3x dx =$$

$$3. \int \frac{2}{(t-9)^2} dt =$$

$$4. \int x\sqrt{4-2x^2} dx =$$

$$5. \int \frac{2x}{x-4} dx =$$

$$6. \int \left(\frac{1}{3x-1} - \frac{1}{3x+1} \right) dx =$$

7. $\int \frac{\sin x}{\sqrt{\cos x}} dx =$

8. $\int (\tan x) [\ln(\cos x)] dx =$

9. $\int \frac{1}{4+3x^2} dx =$

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

11. $y' = \frac{1}{x\sqrt{4x^2-1}}$ Solve for y

12. $\int_0^4 \frac{1}{\sqrt{25-x^2}} dx =$