Show all your work in answering the following questions. Simply writing the answer is not acceptable. Staple all your pages together. The professor is not responsible for lost pages.

Perform the following integrations.

1. \[ \int \frac{dx}{\sqrt{9 - 4x^2}} \]
2. \[ \int \frac{dx}{4 + 9x^2} \]
3. \[ \int \frac{x\,dx}{\sqrt{9 - 4x^2}} \]
4. \[ \int \frac{x\,dx}{4 + 9x^2} \]
5. \[ \int \frac{\cos x}{1 + \sin^2 x}\,dx \]
6. \[ \int \frac{\cos x}{1 + \sin x}\,dx \]
7. \[ \int \frac{\sqrt{9 - x^2}}{x^2}\,dx \]
8. \[ \int \frac{\sqrt{x^2 - 4}}{x}\,dx \]
9. \[ \int x\cos 3x\,dx \]
10. \[ \int xe^{2x^2}\,dx \]