1. The following integrals appear similar, but require different methods to evaluate. Find each indefinite integral:

(a) $\int \frac{1}{x^2+8x+17}\,dx$

(c) $\int \frac{1}{x^2+8x+15}\,dx$

(b) $\int \frac{1}{x^2+8x+16}\,dx$

(d) $\int \frac{1}{(x^2+8x+17)^2}\,dx$

2. Find each indefinite integral:

(a) $\displaystyle\int \frac{x+4}{x^2+8x+25}\,dx$

(b) $\displaystyle\int \frac{2x-1}{x^2+2x-15}\,dx$

(c) $\displaystyle\int \frac{3x^2-18x+35}{x^2-6x+10}\,dx$

(d) $\displaystyle\int \frac{3x-21}{x^2+8x+25}\,dx$

3. Find the following indefinite integrals:

(a) $\displaystyle\int \frac{1}{\sqrt{16-6x-x^2}}\,dx$

(b) $\displaystyle\int \frac{1}{\sqrt{x^2+6x+25}}\,dx$

(c) $\displaystyle\int \frac{1}{(x^2-4x+29)^{\frac{3}{2}}}\,dx$

(d) $\displaystyle\int \frac{2x}{(x^2+6x+25)^2}\,dx$

4. Use Substitution to find: $\int \frac{1}{\sqrt[3]{x} - \sqrt[5]{x}}\, dx$