

No calculators will be allowed and no partial credit will be given.

1. Express the indefinite integral $\int -\frac{4}{(x+1)(x+2)} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.
2. Express the indefinite integral $\int -\frac{2x}{(x-4)(x+1)} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.
3. Express the indefinite integral $\int \frac{2x-4}{(x+3)(x+4)} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.
4. Express the indefinite integral $\int -\frac{2}{x^2-9} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.
5. Express the indefinite integral $\int -\frac{3x}{x^2+x-12} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.
6. Express the indefinite integral $\int \frac{-2x-4}{(x-4)(x+2)} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.
7. Express the indefinite integral $\int -\frac{4x}{(x+1)^2} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.
8. Express the indefinite integral $\int \frac{3-4x}{(x+2)^2} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.
9. Express the indefinite integral $\int -\frac{2x}{x^2+8x+16} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.
10. Express the indefinite integral $\int \frac{-2x-4}{x^2+8x+16} dx$ in terms of elementary functions. Use the symbol C to denote an arbitrary constant.

1. $4 \ln(|x + 2|) - 4 \ln(|x + 1|) + C$
2. $-\frac{2 \ln(|x + 1|)}{5} - \frac{8 \ln(|x - 4|)}{5} + C$
3. $12 \ln(|x + 4|) - 10 \ln(|x + 3|) + C$
4. $\frac{\ln(|x + 3|)}{3} - \frac{\ln(|x - 3|)}{3} + C$
5. $-\frac{12 \ln(|x + 4|)}{7} - \frac{9 \ln(|x - 3|)}{7} + C$
6. $-2 \ln(|x - 4|) + C$
7. $-4 \ln(|x + 1|) - \frac{4}{x + 1} + C$
8. $-4 \ln(|x + 2|) - \frac{11}{x + 2} + C$
9. $-2 \ln(|x + 4|) - \frac{8}{x + 4} + C$
10. $-2 \ln(|x + 4|) - \frac{4}{x + 4} + C$