

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

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

1. $2 \ln(|x - 3|) - 2 \ln(|x - 2|) + C$
2. $20 \ln(|x + 4|) - 15 \ln(|x + 3|) + C$
3. $7 \ln(|x + 1|) - 9 \ln(|x + 2|) + C$
4. $\frac{\ln(|x - 3|)}{6} - \frac{\ln(|x + 3|)}{6} + C$
5. $4 \ln(|x + 4|) - 2 \ln(|x + 2|) + C$
6. $13 \ln(|x - 4|) - 10 \ln(|x - 3|) + C$
7. $-\ln(|x + 4|) - \frac{4}{x + 4} + C$
8. $\frac{2}{x - 1} - \ln(|x - 1|) + C$
9. $3 \ln(|x - 1|) - \frac{3}{x - 1} + C$
10. $\ln(|x - 3|) - \frac{5}{x - 3} + C$