

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

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

1. $\frac{\ln(|x-4|)}{4} - \frac{\ln(|x+4|)}{4} + C$

2. $6 \ln(|x-2|) - 3 \ln(|x-1|) + C$

3. $4 \ln(|x+1|) - 6 \ln(|x+2|) + C$

4. $\frac{3 \ln(|x-3|)}{5} - \frac{3 \ln(|x+2|)}{5} + C$

5. $3 \ln(|x-3|) - 4 \ln(|x-4|) + C$

6. $12 \ln(|x-4|) - 9 \ln(|x-3|) + C$

7. $3 \ln(|x-4|) - \frac{12}{x-4} + C$

8. $3 \ln(|x+2|) + \frac{3}{x+2} + C$

9. $\frac{16}{x-4} - 4 \ln(|x-4|) + C$

10. $\frac{4}{x-3} - 2 \ln(|x-3|) + C$