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

1. Express the indefinite integral \( \int (2x - 2) \ (x^2 - 2x + 4)^2 \, dx \) in terms of elementary functions. Use the symbol C to denote an arbitrary constant.

2. Express the indefinite integral \( \int -\sin (5x) \, dx \) in terms of elementary functions. Use the symbol C to denote an arbitrary constant.

3. Express the indefinite integral \( \int -3 \ (\cos(t))^6 \sin(t) \, dt \) in terms of elementary functions. Use the symbol C to denote an arbitrary constant.

4. Express the indefinite integral \( \int 7t e^{-t^2} \, dt \) in terms of elementary functions. Use the symbol C to denote an arbitrary constant.

5. Express the indefinite integral \( \int 2x^{3/2} \sin \left(x^{5/2} + 1\right) \, dx \) in terms of elementary functions. Use the symbol C to denote an arbitrary constant.

6. Express the indefinite integral \( \int \frac{10x + 2}{5x^2 + 2x} \, dx \) in terms of elementary functions. Use the symbol C to denote an arbitrary constant.

7. Express in simplified form the value of \( \int_0^1 -2x^4 \ (2x^5 + 1)^2 \, dx \).

8. Express in simplified form the value of \( \int_0^1 6xe^{-x^2} \, dx \).

9. Express in simplified form the value of \( \int_0^\frac{\pi}{2} -2 \cos(x) \ (\sin(x))^5 \, dx \).

10. Express in simplified form the value of \( \int_1^e \frac{3 \ (\ln(x))^2}{x} \, dx \).
1. \( \frac{(x^2 - 2x + 4)^3}{3} + C \)

2. \( \frac{\cos(5x)}{5} + C \)

3. \( \frac{3 \cos(t)^7}{7} + C \)

4. \( -\frac{7e^{-t^2}}{2} + C \)

5. \( -\frac{4\cos(x^2 + 1)}{5} + C \)

6. \( \ln(|5x^2 + 2x|) + C \)

7. \( -\frac{26}{15} \)

8. \( 3 - 3 \cdot e^{-1} \)

9. \( -\frac{1}{3} \)

10. 1