Date:	_____	**Math 31**		**Name:**	_____
Start:	_____	**Integral Gateway Test**		**ID #:**	_____
End:	_____			**Section:**	_____
Grader:	_____			**Instructor:**	_____

Find each of the indicated integrals. You need 6 out of 7 correct to pass (no partial credit). *Be careful when writing answers, since the graders have firm instructions to mark off for all errors, including missing parentheses!* **No calculators allowed.**
Time Limit: 20 minutes.

- $\int te^{0.5t}\,dt$

- $\int \left(y^4 + 17y^{-4}\right)\,dy$

- $\int t\sqrt{\dfrac{t^2+1}{5}}\,dt$

THIS TEST IS CONTINUED ON THE BACK

- $\int \frac{e^x}{(2+e^x)^2}\,dx$

- $\int \cos(1-3r)\,dr$

- $\int \frac{(\ln p)^3}{p}\,dp$

- $\int_1^2 \frac{1}{5x-1}\,dx$

Date:		**Math 31**	**Name:**
Start:		**Integral Gateway Test**	**ID #:**
End:			**Section:**
Grader:			**Instructor:**

Find each of the indicated integrals. You need 6 out of 7 correct to pass (no partial credit). *Be careful when writing answers, since the graders have firm instructions to mark off for all errors, including missing parentheses!* **No calculators allowed.**
Time Limit: 20 minutes.

- $\int_0^3 \left(-t^2 + 4t + 1\right)\, dt$

- $\int te^{0.5t}\, dt$

- $\int_0^1 \frac{z^3}{\sqrt{9z^4 + 16}}\, dz$

THIS TEST IS CONTINUED ON THE BACK

- $\int \cos(1-3r)\,dr$

- $\int \frac{e^z}{\sqrt{15+e^z}}\,dz$

- $\int \frac{7}{x\ln x}\,dx$

- $\int \frac{e^x}{1+e^x}\,dx$

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Find each of the indicated integrals. You need 6 out of 7 correct to pass (no partial credit). *Be careful when writing answers, since the graders have firm instructions to mark off for all errors, including missing parentheses!* **No calculators allowed.**
Time Limit: 20 minutes.

- $\int (\cos(6y) - \cos(-6y))\, dy$

- $\int_{-1}^{8} \sqrt{q+1}\, dq$

- $\int \alpha \cos(5\alpha)\, d\alpha$

THIS TEST IS CONTINUED ON THE BACK

- $\int \frac{e^x}{(2+e^x)^2}\,dx$

- $\int_1^e \frac{(\ln x)^4}{4x}\,dx$

- $\int \frac{t^2}{t^3-9}\,dt$

- $\int_0^1 \left(z^4+2z-3\right)\,dz$

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Find each of the indicated integrals. You need 6 out of 7 correct to pass (no partial credit). *Be careful when writing answers, since the graders have firm instructions to mark off for all errors, including missing parentheses!* **No calculators allowed.**
Time Limit: 20 minutes.

- $\int_0^2 \left(x^2 + 4x - 5\right)\, dx$

- $\int (\cos\theta)(\sin\theta)^3\, d\theta$

- $\int \sqrt{4t+1}\, dt$

THIS TEST IS CONTINUED ON THE BACK

- $\int t \cos(t/2)\, dt$

- $\int \frac{e^z}{\sqrt{15 + e^z}}\, dz$

- $\int \frac{e^q + 2e^{2q} + 3e^{3q} + 4e^{4q}}{e^q + e^{2q} + e^{3q} + e^{4q}}\, dq$

- $\int \frac{1}{s(\ln s)^4}\, ds$

Date:	_____	**Math 31**		**Name:**	_____
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End:	_____			**Section:**	_____
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Find each of the indicated integrals. You need 6 out of 7 correct to pass (no partial credit). *Be careful when writing answers, since the graders have firm instructions to mark off for all errors, including missing parentheses!* **No calculators allowed.**
Time Limit: 20 minutes.

- $\int_0^1 \left(x^4 - 3x^2 + 2\right)\, dx$

- $\int x \sin(x^2 + 91)\, dx$

- $\int_0^1 \frac{z^3}{\sqrt{9z^4 + 16}}\, dz$

THIS TEST IS CONTINUED ON THE BACK

- $\int \frac{e^{4x}+1}{e^{2x}}\,dx$

- $\int 3t\cos(3t)\,dt$

- $\int \frac{(\ln p)^3}{p}\,dp$

- $\int \frac{1-3t^2}{t-t^3}\,dt$