Date:	\mathbf{Sample}	${f Sample}$	Name:	\mathbf{Sample}
Start:	\mathbf{Sample}	Derivative Gateway Test	ID #:	\mathbf{Sample}
End:	\mathbf{Sample}		Section:	\mathbf{Sample}
Grader:	\mathbf{Sample}		Instructor:	\mathbf{Sample}

Find the derivative of each of the following functions. You do not need to simplify your answers. You need 6 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.

993.
$$y = (3x+5)^4 + 5x - \pi$$

994.
$$y = (x^3 + 2)e^x$$

995.
$$y = \frac{\ln x}{x^2}$$

996.
$$y = (\cos t)^{3/2}$$

997.
$$y = 5^{x/3}$$

998.
$$f(x) = \frac{\sqrt{x+5}}{x^{2/3}}$$

999.
$$y = (mx)^3 + px^2 + qx + r$$
, where m, p, q, r are constants

Date:	${f Sample}$	${f Sample}$	Name:	\mathbf{Sample}
Start:	${f Sample}$	Derivative Gateway Test	ID #:	\mathbf{Sample}
End:	${f Sample}$		Section:	\mathbf{Sample}
Grader:	\mathbf{Sample}		Instructor:	\mathbf{Sample}

Find the derivative of each of the following functions. You do not need to simplify your answers. You need 6 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.

993.
$$r = \sqrt{t^3 + t - e}$$

994.
$$y = (x^2 + 5) \tan(\sqrt{5}x)$$

995.
$$y = \frac{e^{2x-3}}{2x^2+7}$$

996.
$$y = \sqrt{\cos(7\pi x)}$$

997.
$$f(t) = 7 \cdot 5^t$$

998.
$$F(s) = \ln(\sin(2s) + 6)$$

999. $y = (\ln x)^a$, where a is a nonzero constant

Date:	\mathbf{Sample}	${f Sample}$	Name:	\mathbf{Sample}
Start:	\mathbf{Sample}	Derivative Gateway Test	ID #:	\mathbf{Sample}
End:	\mathbf{Sample}		Section:	\mathbf{Sample}
Grader:	\mathbf{Sample}		Instructor:	\mathbf{Sample}

Find the derivative of each of the following functions. You do not need to simplify your answers. You need 6 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.

993.
$$B(\theta) = \sqrt{\frac{3\theta^2 - 6\theta - \pi}{5}} + \theta$$

994.
$$H = s^2 \sqrt{1 - s^a}$$
, where a is a positive constant

995.
$$y = \frac{e^{s-3}}{2s^2 + 7}$$

996.
$$f(x) = e^{\sin x}$$

997.
$$f(t) = (\ln 4)4^t$$

998.
$$y = \frac{x^2}{\ln(x+3)}$$

999.
$$g(z) = \sqrt{(7-z)^2 + z^2}$$