Arc Length	Area, Surface of Rev	Para-metrics	Polar Coordinates	Random
100 What is the integral of the arc length?	**100** What is the formula for surface of revolution	**100** What is arc length in parametric form?	**100** P(x,y) = P(___, ___) P(r, θ) = P(___, ___)	**100** What year did the first Thanksgiving take place?
200 Set up, but do not evaluate, an integral for the length of the curve. $x=9\sin(y)$, $0 \le y \le \pi/2$	**200** Set up the integral for the area of the surface. $xy=5y^2-1$, $1 \le y \le 4$, x-axis	**200** What is surface area in parametric form?	**200** What is the area under a curve (polar)?	**200** What state in the USA consumes the most turkey on Thanksgiving?
300 Set up the integral: $y = 2/3x^{3/2}$, $0 \le x \le 6$	**300** The given curve is rotated about the x-axis. Set up the integral with respect to x. $x=\ln(6y+1)$, $0 \le y \le 1$	**300** Find the points (x,y) corresponding to the parameter values t=-2,0,2. $x=9t^2+9t$, $y=3^{t+1}$	**300** Plot the point whose polar coordinates are given. Then find two other pairs of polar coordinates of this point, one with r>0 and one with r<0. (8, pi/4)	**300** What president made Thanksgiving a national holiday?
400 Find the exact length of the curve. L = ∫_0^6 √ 1+x dx	**400** The given curve is rotated about the x-axis. Set up the integral with respect to y. $x=\ln(6y+1)$, $0 \le y \le 1$	**400** Find (dx/dt), (dy/dt), (dy,dx). $x=6t^3+4t$, $y=3t-5t^2$	**400** Consider the following curve: $r^2\cos(2\theta)=64$ Find the Cartesian equation for the curve.	**400** What was the most popular Thanksgiving travel destination?
500 Find the exact length of the curve. $y= (2/3)x^{3/2}$, $0 \le x \le 4$		**500** Find the surface area generated by rotating the given curve about the y=axis. $x=6t^2$, $y=4t^3$, $0 \le t \le 1$ *HINT: $u=1+t^2$ & $du=2tdt$*	**500** Find a polar equation for the curve represented by the given Cartesian equation. x=-4	**500** What household hazard triples on Thanksgiving?