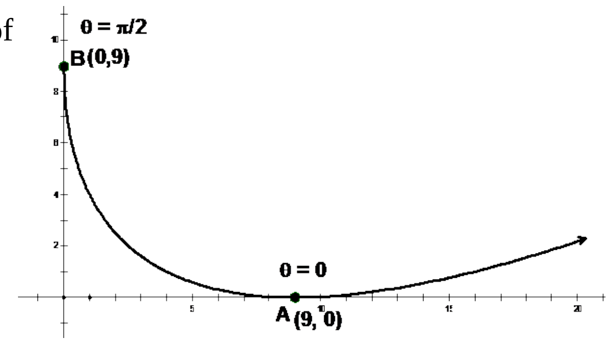
FYI:

The graph of 3C) connects points *A* and *B*.

The tail to the right of point *A* is extraneous for our pair of parametric equations, since the value of *x* could not be greater than 9.



$\begin{cases} x = 9\cos^4\theta \\ y = 9\sin^4\theta \end{cases}$, where $0 \le \theta < 2\pi$ and $y = \left(3 - x^{\frac{1}{2}}\right)^2$ are equivalent only over $0 \le x \le 9$

For a real-valued function $y = \left(3 - x^{\frac{1}{2}}\right)^2$, the only restriction on the domain is $x \ge 0$ and the graph would continue to the right.

Here's the graph of Team A)

The graph always lies above $y = 5x + 2$ for $x < -\frac{1}{2}$ or $x > \frac{1}{2}$ and below for *x*-values in-between these two critical values.. As $x \to +\infty$ (to the right) or $x \to -\infty$ (to the left), the graph is almost indistinguishable from the straight line. In fact, this is true for $x < -3$ and for $x > +2$. $x = \pm\frac{1}{2}$ and $y = 5x + 2$ are called asymptotes, lines which the function gets arbitrarily close to, but never actually makes contact!

Over $-\frac{1}{2} < x < \frac{1}{2}$, the graph reaches a maximum value over the interval $\left(0, \frac{1}{2}\right)$ and opens downward. Using calculus or a graphing calculator, over this interval, the maximum value of approximately –2.57 occurs at approximately $x = 0.135$.