

Name _____ Quiz 3

1) Graph the function $y = (x^4 + 2x^2 + 1)^5$ on the axis below. Your graph should accurately reflect all maxima and minima, however you need not worry about concavity. Show your work.

2) A spherical balloon is increasing in size as air fills the inside. Air is being pumped in such that the radius is increasing at 2in/min. When the radius is exactly 5 inches, how fast is the surface area increasing? Note that the formula for surface area of a sphere is $SA = \frac{4}{3}\pi r^2$.