

Quiz #2; Tuesday, date: 01/30/2018
MATH 53 Multivariable Calculus with Stankova
Section #114; time: 2 – 3:30 pm
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Student name:

1. Find an equation of the sphere that passes through the origin and whose center is $(1, -2, 2)$.
2. *True / False?* Suppose f and g are functions of t , then the following two parametric curves has the same tangent line at $t = 0$:

$$x = f(t), \quad y = g(t);$$

and

$$x = f(-2t), \quad y = g(-2t).$$

3. *True / False?* Given a polar curve $r = f(\theta)$, the area under the curve and above the x -axis from $\theta = \alpha$ to $\theta = \beta$ is always given by

$$\int_{\alpha}^{\beta} \frac{1}{2} f(\theta)^2 d\theta.$$