## MATH 2415 TEST 2

## Name:

Testing conditions:

- 50-minute time limit;
- notes, books, and calculators are allowed;
- inter-student communication, telecommunication, and internet access are not allowed.

| Exercise | Point Possible | Score |
| ---: | ---: | :--- |
| 1 | 50 |  |
| 2 | 50 |  |
| Total | 100 |  |

1. [50 points] Find an equation for the plane tangent to the surface $z=y / \sqrt{x}$ at $(x, y, z)=$ $(9,-12,-4)$.
2. [50 points] Consider the parametric curve with position vector $\mathbf{r}(t)=\langle\cos (2 t), \sin (3 t), \sin (4 t)\rangle$. What is the radius of curvature at $t=0$ ?
