

Name: \_\_\_\_\_ Sort #: \_\_\_\_\_

**Worksheet 4**  
**Surfaces in Space**

MATH 2210, Fall 2018

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Identify and sketch the given quadric surfaces. State the surface type, it's general form, as well as its  $xy$ ,  $yz$ , and  $xz$  traces.

1.  $x^2 + \frac{y^2}{4} + z^2 = 1$

2.  $16x^2 - y^2 + 16z^2 = 4$

$$3. \ 4x^2 - y^2 - z^2 = 1$$

$$4. \ z^2 = x^2 + \frac{y^2}{9}$$