

## Chapter 9 Review Extra Practice Answers

1. a. point:  $(6, 1, -4)$   
b. skew lines; lines do not intersect  
c. point:  $(-2, 9, 6)$   
d. point:  $(2.4, 2.8, -6.8)$
2. a.  $x = 3, y = 1, z = 5$   
b.  $x = \frac{13}{2}, y = -2, z = -\frac{5}{2}$   
c. **No solution**  
d.  $x = 8, y = -2, z = -4$
3. a.  $d = 8.7$   
b.  $d = 6.22$   
c.  $d = 9.84$   
d.  $d = 6.94$
4. a.  $d = 3.88$   
b.  $d = 1.71$   
c.  $d = 3.55$   
d.  $d = 1.43$
5.  $d = 3.11$
6.  $d = 13.1$

**#3a solution:** coincident planes

$$(x, y, z) = (r, s, t) \text{ where } r, s, t \in \mathbf{R}$$

**#3b solution:** planes intersect in a line

$$(x, y, z) = \left( \frac{-2}{17} - \frac{31}{17}t, \frac{27}{17} + \frac{2}{17}t, t \right) \text{ where } t \in \mathbf{R}$$

4. a.  $d = 3.92$   
b.  $d = 9.7$   
c.  $d = 4.70$   
d.  $d = 8.55$