Math 3301 Foundations of Geometry
Unit II Practice Test **Solutions**

1. (a) False (b) True (c) True

2.

Statements	Reasons
1. $\angle 1 \cong \angle 2$	1. Given
2. $\angle 3 \cong \angle 4$	2. Given
3. $\overline{NL} \cong \overline{NL}$	3. Reflexive
4. $\triangle NOL \cong \triangle NML$	4. ASA
5. $\overline{NM} \cong \overline{NO}$	5. CPCTC
6. $\overline{ML} \cong \overline{OL}$	6. CPCTC
7. LMNO is a kite	7. Def. of a kite (2 pairs of $\cong$ consecutive sides)

3.

Statements	Reasons
1. $\triangle EBF \cong \triangle GDH$	1. Given
2. $\overline{EF} \cong \overline{GH}$	2. CPCTC
3. $\triangle AEH \cong \triangle CGF$	3. Given
4. $\overline{FC} \cong \overline{HE}$	4. CPCTC
5. EFGH is a P	5. If both pairs of opposite sides of a quadrilateral are $\cong$, then the figure is a P.

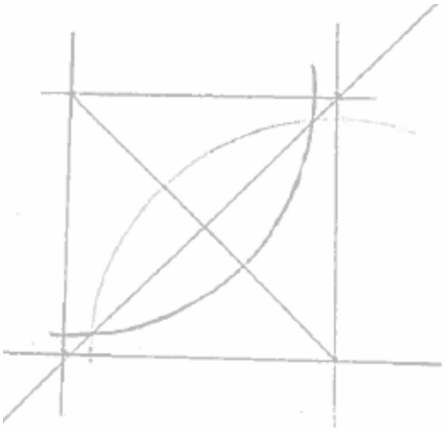
4. (a) True (b) True (c) True (d) True (e) False

5. $x = 3$, $CD = 9$ 6. $x = 1$, $DE = 5$, $BC = 10$

7.

S	R
1. Rect ABCD + diagonals $\overline{AC}$ & $\overline{BD}$	1. Given
2. $\overline{AB} \cong \overline{DC}$	2. Opposite sides of rect $\cong$
3. $\overline{BD} \cong \overline{AC}$	3. Diagonals of rect $\cong$
4. $\overline{AD} \cong \overline{AD}$	4. Reflexive
5. $\triangle ABD \cong \triangle DCA$	5. SSS
6. $\angle 1 \cong \angle 2$	6. CPCTC

8.



9. (a) False (b) True

10. 22.2

11. m<B = m<C = 113˚, m<D = 67˚

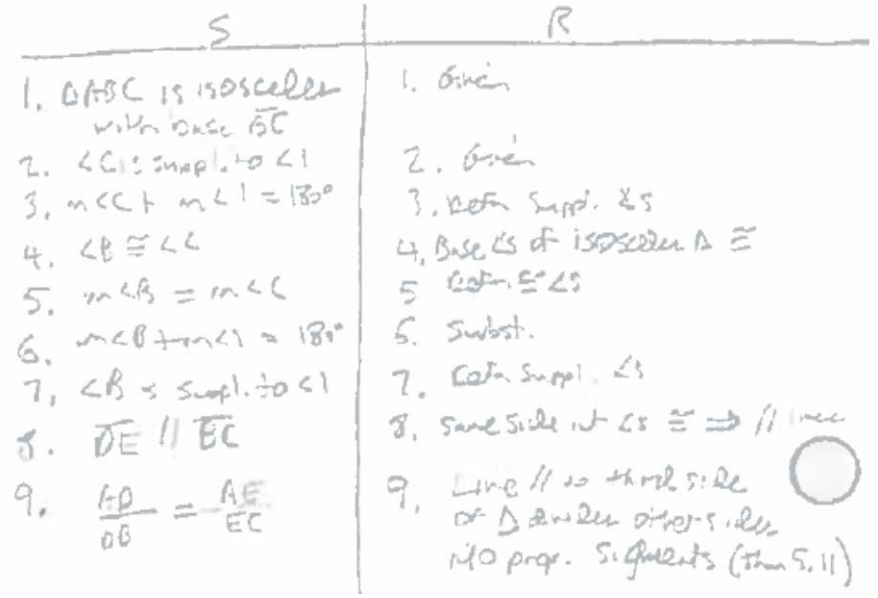
12. (a) 60 mi/h (b) 8 h/25 ab

13. 200 mi

14. (a) 3.5 cm (b) 2 cm (c) 8 cm (d) 95˚

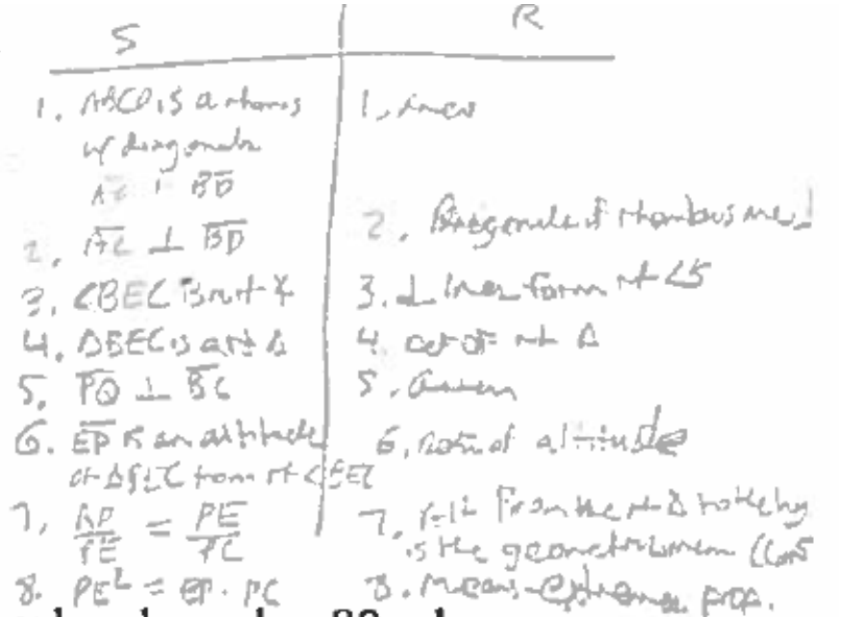
15. (a) 21 ft (b) *BF* =21 ft, *FC* = 56 ft

16.



17. (a) 22 cm (b) 915 ft^2

18.



19. 60 yd

20. 14 cm (approximately)

21. 56 ft (approximately)

22. If b = 7 ft, find c.

23. 10 cm

24. 1 mi