Test 5

1. A : parallel
2. B : perpendicular
3. E : perpendicular
4. B : bisector
5. A : AF = FB
6. D : $\overline{DA}$ and $\overline{GF}$
7. C : I, II and IV are true
8. B : $90^\circ \div 2 = 45^\circ$
9. B : $90^\circ \div 2 = 45^\circ$
10. C : $\perp$
11. A : $\parallel$
12. A : This is the converse of the original statement.
13. C : I and III: straightedge and compass
14. D : at the vertex
15. C : perpendicular lines are not parallel

Test 6

1. E : supplementary
2. C : congruent
3. B : $90^\circ - 35^\circ = 55^\circ$
4. C : $180^\circ - 40^\circ = 140^\circ$
5. E : $20^\circ + 70^\circ = 90^\circ$, so they are complementary
6. B : $\angle 2$ and $\angle 5$
7. A : 90°, because line SV $\perp$ line WT
8. E : can't tell from information given
9. D: $\angle 1$
10. A : 180° They combine to form a straight angle.
11. C : vertical angles
12. D: We don't know the measures of $\angle 4$ and $\angle 5$, so sum cannot be determined.
13. A : $\overleftrightarrow{FC}$ is a straight line, so $\angle 1$ would be included to make 180°.
14. D : The measures of these angles are not given: looking the same is not sufficient.
15. A : $90^\circ + 90^\circ < 185^\circ$

Test 7

1. D : $\angle 7$
2. C : $180^\circ - 80^\circ = 100^\circ$
3. E : Alternate interior angles are congruent.
4. B : $\angle 2$
5. D : alternate exterior angles
6. E : $\angle$'s 1, 2, 4, 5, 6, 7 and 8
7. C : 65°; vertical angles
8. D : vertical angles
9. E : supplementary angles
10. E : can't tell: rules for alternate exterior angles apply only for parallel lines
11. C : If the sum of two angles is 180°, they are supplementary.
12. A : parallel lines
13. D : 45°
14. D : 8: four for each intersection
15. B : congruent

Test 8

1. E : I, II and V
2. C : All squares have 4 right angles and opposite sides that are congruent, so they are rectangles.
3. D : Some trapezoids have 1 right angle, but they need not have any.
4. E : length of each side
5. A : quadrilateral
6. D : 180°
7. D : square
8. B : rhombus