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: $90° \div 2 = 45°$
9. B: $90° \div 2 = 45°$
10. C: $\perp$
11. A: $\parallel$
12. A: This is the converse of the original statement.
13. C: I and III: straightedge and compa
14. D: at the vertex
15. C: perpendicular lines are not parallel

Test 6

1. E: supplementary
2. C: congruent
3. B: $90° - 35° = 55°$
4. C: $180° - 40° = 140°$
5. E: $20° + 70° = 90°$, 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: $90° + 90° < 185°$

Test 7

1. D: $\angle 7$
2. C: $180° - 80° = 100°$
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