

Test 5

- 1) A parallel
- 2) B perpendicular
- 3) E perpendicular
- 4) B bisector
- 5) A $AF = FB$
- 6) D segments $\overline{DA}$ and $\overline{GF}$
- 7) C I, II and IV are true
- 8) B 45°
- 9) B 45°
- 10) C $\perp$ (perpendicular)
- 11) A II (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 complementary ($20^\circ + 70^\circ = 90^\circ$)
- 6) B $\angle 2$ and $\angle 5$
- 7) A 90° because of perpendicular lines
- 8) E can't tell from information given
- 9) D $\angle 1$
- 10) A $\angle 1$ and $\angle 2$ are complementary, together with $\angle 3$ make a straight angle
- 11) C same because they are vertical angles
- 12) D We don't know the measures of $\angle 4$ and $\angle 5$, so can't determine their sum
- 13) A $\leftrightarrow$
FC is a straight line, so $\angle 1$ would be included to make 180°
- 14) D the measures of these angles is not given, looking the same is not sufficient.
- 15) A $90^\circ + 90^\circ < 185^\circ$

Test 7

- 1) D $\angle 7$
- 2) C 100°
- 3) E alternate interior angles are congruent
- 4) B $\angle 2$
- 5) D alternate exterior angles
- 6) E $\angle 1, 2, 4, 5, 6, 7$, and 8
- 7) C 65°
- 8) D vertical angles
- 9) E supplementary angles
- 10) E can't tell, rules for alternate exterior angles only apply if the lines are parallel
- 11) C If the sum of two angles is 180° , they are supplementary.
- 12) A parallel lines
- 13) D 45°
- 14) D 8 right angles
- 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 one 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
- 9) A 360°
- 10) B trapezoid
- 11) A $5 + 7 + 9 + 3 = 24$ m
- 12) C $9 + 10 + 15 = 34$ m
- 13) D $8.5 - 4 = 4.5$ (missing piece of perimeter)
 $4 + 3 + 4.5 + 2 + 8.5 + 5 = 27$ m
- 14) B $4 \times 11 = 44$ cm
- 15) E $2(25) + 2(15) = 80$ cm