Lesson Practice 6A

1. ∠AHG, ∠CHF
2. ∠FHB, ∠GHD
3. ∠AHG
4. ∠GHD
5. ∠LFK or ∠JFH
6. ∠CHA
7. ∠HFK or ∠JFL
8. ∠DHG
9. 40°: vertical angles
10. 65°: vertical angles
11. 90°: supplementary angles
12. 50°: complementary angles
13. 115°: supplementary angles
14. 90°: vertical angles
15. f
16. a
17. e
18. b
19. d
20. c

Lesson Practice 6B

1. ∠MNQ, ∠SNR
2. ∠MNQ, ∠TNP
3. ∠YRZ
4. ∠TNP
5. ∠QNM or ∠PNR

6. ∠TNP
7. ∠YRZ or ∠SRN
8. ∠SNR
9. 55°: complementary angles
10. 35°: vertical angles
11. 90°: supplementary angles
12. 85°: supplementary angles
13. 40°: vertical angles
14. 55°: vertical angles
15. alpha
16. complementary
17. supplementary
18. gamma
19. vertical
20. delta

Systematic Review 6C

1. 2; 5: If the student referred to these angles using their three-letter names, that would be correct as well.
2. 4
3. BFD
4. BFE or AFD
5. BFD or AFC or AFE
6. 1
7. 40°; complementary angles
8. 40°; If m∠2 = 50°, then m∠1 = 40°, since ∠1 and ∠2 are complementary. If m∠1 = 40°, then m∠4 = 40°, since ∠1 and ∠4 are vertical angles.
9. 1 or 4
10. 140°; supplementary angles
11. any two of angles 1, 2, and 4
12. ∠3; ∠CFE
13. Use a ruler to check. The segments on each side of the bisector should measure 1.9 cm or 19 mm.
14. Use a protractor to check. The angles on each side of the bisector should measure 26°.
15. perpendicular
16. 90°
17. 180°
18. 90°
19. 180°
20. empty or null

Systematic Review 6D

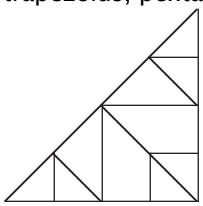
1. true
2. false: They are complementary.
3. true
4. false: Perpendicular angles were not in the list of given information.
5. false: ray GK is the common side.
6. true
7. 39°: vertical angles
8. 51°: complementary angles
9. 90°: perpendicular lines form 90° angles
10. right
11. supplementary
12. 360°
13. f
14. e
15. b
16. a
17. g
18. d
19. h
20. c

Systematic Review 6E

1. lines QR, RV, and QV
2. $\overline{RT}$, $\overline{XR}$, $\overline{XT}$
3. 360° ÷ 8 = 45°

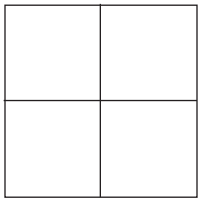
4. If $m\angle 1 = 90°$, then $m\angle SRV = 90°$ since they are supplementary. $\angle SRV$ is made up of the three smaller angles in the problem, so the sum of their measures is equal to that of $\angle SRV$.
5. obtuse
6. yes: Both are 90°, so they add up to 180°.
7. no: Complementary angles add up to 90°.
8. yes
9. If $\angle$'s 2, 3 and 4 are congruent, and add up to 90°, the measure of each must be $\frac{90°}{3}$ or 30°. Since $\angle 8$ and $\angle 4$ are vertical angles, they are congruent, so $m\angle 8 = 30°$.
10. 2: vertical angles
11. acute
12. $m\angle 2 + m\angle 3 + m\angle 4 = 90°$
$m\angle 3 = 90° - (25° + 35°)$
$m\angle 3 = 90° - 60° = 30°$
13. $m\angle YRX = m\angle 3$: vertical angles
$m\angle YRX = 30°$ (see #12)
14. ray RQ
15. Use your ruler to check that the resulting line segments are equal in length.
16. Use your protractor to check that the resulting angles are equal in measure.
17. $(-7)^2 = (-7)(-7) = 49$
18. $-(15)^2 = -(15)(15) = -225$
19. $-12^2 = -(12)(12) = -144$
20. $-(9)^2 = -(9)(9) = -81$

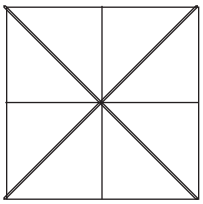
3. triangles, squares, trapezoids, pentagons



4. answers will vary
5. $P = 6X + .5(6)X$
   $P = 6X + 3X$
   $P = 9X$
6. $P = 9X$
   $P = 9(8)$
   $P = \$72$

Honours Lesson 6

1. 

2. 

14. D : The measures of these angles are not given: looking the same is not sufficient.
15. A : $90° + 90° < 185°$

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°.