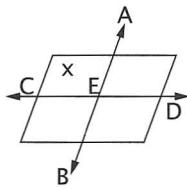


SYSTEMATIC REVIEW 4D - LESSON PRACTICE 5A

4. right
 5. 180°
 6. PTR or RTP
 7. 90°
 8. 90°
 9. T
 10. lines MS, ST or MT
 11. right
 12. acute
 13. obtuse
 14. straight
 15. acute
 16. see drawing
 (labeling of lines can be switched)
 17. infinite
 18. see drawing
 19. $\angle CEB, \angle BED, \angle DEA, \angle AEC$
 20. E

17. false: A point has neither length nor width.
 18. true
 19. $30 = 42Y + 18$
 $30 - 18 = 42Y$
 $12 = 42Y$
 $\frac{12}{42} = Y$
 $\frac{2}{7} = Y$
 20. $15 = -45M - 30$
 $15 + 30 = -45M$
 $45 = -45M$
 $\frac{45}{-45} = M$
 $-1 = M$



Systematic Review 4E

1. right
 2. obtuse
 3. acute
 4. straight
 5. reflex
 6. H
 7. Z
 8. H
 9. $\angle BHE$ or $\angle EHB$
 10. $\angle YPS$ or $\angle SPY$
 11. obtuse
 12. obtuse
 13. straight
 14. reflex
 15. false: A line is one-dimensional.
 16. true

Lesson Practice 5A

- parallel
- perpendicular
- bisector
- perpendicular bisector
- midpoint
- Follow the procedure in the text.
 Use a ruler to check that the line segments of each side of the bisector have equal lengths.
- Follow the procedure in the text.
 Use a ruler to check that the line segments of each side of the bisector have equal lengths.
- Follow the procedure in the text.
 Use a protractor to check that the angles on each side of the bisector have equal measures.
- Follow the procedure in the text.
 Use a protractor to check that the angles on each side of the bisector have equal measures.

Lesson Practice 5B

1. right
2. intersect
3. angle, line segment
4. right
5. \overline{XZ}
6. Follow the procedure in the text.
Use a ruler to check that the line segments of each side of the bisector have equal lengths.
7. Follow the procedure in the text.
Use a ruler to check that the line segments of each side of the bisector have equal lengths.
8. Follow the procedure in the text.
Use a protractor to check that the angles on each side of the bisector have equal measures.
9. Follow the procedure in the text.
Use a protractor to check that the angles on each side of the bisector have equal measures.

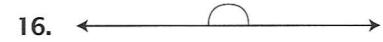
Systematic Review 5C

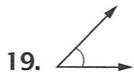
1. c
2. f
3. b
4. e
5. d
6. a
7. E
8. 180°
9. compass, straightedge
10. any angle between 180° and 360°
11. null set
12. Use a ruler to check.
13. Use a ruler to check. The segment on each side of the bisector should measure $1\frac{1}{4}$ in.
14. Use a protractor to check.

15. Use a protractor to check.
 $\angle DEG$ and $\angle FEG$ should each measure 34° .
16. reflex
17. right
18. acute
19. obtuse
20. straight

Systematic Review 5D

1. bisector
2. parallel
3. reflex
4. perpendicular
5. similar
6. congruent
7. lines QE, QD, ED
8. Q
9. yes
10. Q
11. yes: Although this plane is not shown, any pair of intersecting lines lie in the same plane.
12. yes: Although this plane is not shown, any pair of intersecting lines lie in the same plane.
13. Use a ruler to check.
14. Use a ruler to check. The segment on each side of the bisector should measure $1\frac{1}{2}$ in.
15. Use a protractor to check.
 $\angle ABG$ and $\angle CBG$ should each measure 23° .

16. 
17. 
18. 



Systematic Review 5E

1. f
2. e
3. b
4. c
5. g
6. a
7. d
8. false: Use a compass and a straightedge
9. true
10. false: The two parts are congruent.
11. false: The line will be perpendicular only if it forms a 90° angle.
12. true
13. Use a ruler to check.
14. Use a ruler to check.
The segment on each side of the bisector should measure $\frac{7}{8}$ in.
15. Use a protractor to check.
16. Use a protractor to check.
 $\angle XYG$ and $\angle ZYG$ should each measure 10° .
17. $24Q + 18Y = 30$
 $6(4Q + 3Y) = 6(5)$
 $4Q + 3Y = 5$
18. $-14Q - 21D = -42$
 $-7(2Q + 3D) = -7(6)$
 $2Q + 3D = 6$

19. $16X - 8 = 56$
 $8(2X - 1) = 8(7)$
 $2X - 1 = 7$
 $2X = 7 + 1$
 $2X = 8$
 $X = \frac{8}{2} = 4$

20. $22X + 33 = 44$
 $11(2X + 3) = 11(4)$
 $2X + 3 = 4$
 $2X = 4 - 3$
 $2X = 1$
 $X = \frac{1}{2}$

Lesson Practice 6A

1. $\angle AHG, \angle CHF$
2. $\angle FHB, \angle GHD$
3. $\angle AHG$
4. $\angle GHD$
5. $\angle LFK$ or $\angle JFH$
6. $\angle CHA$
7. $\angle HFK$ or $\angle JFL$
8. $\angle DHG$
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. $\angle MNQ, \angle SNR$
2. $\angle MNQ, \angle TNP$
3. $\angle YRZ$
4. $\angle TNP$
5. $\angle QNM$ or $\angle PNR$

6. $\angle TNP$
7. $\angle YRZ$ or $\angle SRN$
8. $\angle SNR$
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 $m\angle 2 = 50^\circ$, then $m\angle 1 = 40^\circ$, since $\angle 1$ and $\angle 2$ are complementary. If $m\angle 1 = 40^\circ$, then $m\angle 4 = 40^\circ$, since $\angle 1$ and $\angle 4$ are vertical angles.
9. 1 or 4
10. 140° : supplementary angles
11. any two of angles 1, 2, and 4
12. $\angle 3$; $\angle CFE$
13. Use a ruler to check. The segments on each side of the bisector should measure $\frac{3}{4}$ in.

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. $360^\circ \div 8 = 45^\circ$

4. If $m\angle 1 = 90^\circ$, then $m\angle SRV = 90^\circ$ 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 $\frac{90^\circ}{3}$ or 30° . Since $\angle 8$ and $\angle 4$ are vertical angles, they are congruent, so $m\angle 8 = 30^\circ$.

10. 2: vertical angles

11. acute

12. $m\angle 2 + m\angle 3 + m\angle 4 = 90^\circ$
 $m\angle 3 = 90^\circ - (25^\circ + 35^\circ)$
 $m\angle 3 = 90^\circ - 60^\circ = 30^\circ$

13. $m\angle YRX = m\angle 3$: vertical angles
 $m\angle YRX = 30^\circ$ (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. interior

4. congruent

5. alternate

6. parallel

7. same

8. congruent

9. 60° : vertical angles

10. 60° : corresponding angles

11. $\angle 1$ and $\angle 2$ are supplementary, so $m\angle 2 = 180^\circ - m\angle 1 = 180^\circ - 70^\circ = 110^\circ$. $\angle 2$ and $\angle 6$ are corresponding angles, so they are congruent. Thus, $m\angle 6 = 110^\circ$.

12. 70° : corresponding angles

13. 120° : corresponding angles

14. 120° : vertical angles

15. yes: Since $\angle 1$ and $\angle 5$ are corresponding angles, they have the same measure. \angle 's 5 and 17 are supplementary, so angles 1 and 17 are also.

16. yes

17. no: They are alternate interior angles.

18. no: They are supplementary angles and add up to 180° . If they were congruent, they would both be 90° .

19. yes: corresponding angles
(It may help to ignore line MP.)

20. yes: Angles 12 and 13 are alternate exterior angles.
(It may help to ignore lines LR and MP.)

Lesson Practice 7A

1. transversal
2. exterior

Lesson Practice 7B

1. false
2. true
3. true
4. false: They are always congruent.
5. false: Two parallel lines are cut by a transversal.
6. true