10

NAME _____ DATE _____

Cumulative Review

For use after Chapters 1–10

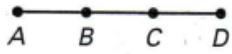
$\angle A$ and $\angle B$ are complementary. Find the measure of $\angle A$ and $\angle B$. (1.6)

1. $m\angle A = (9x - 14)°$
   $m\angle B = (8x + 2)°$

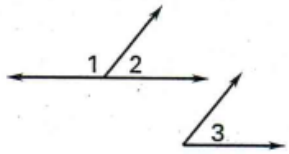
2. $m\angle A = (7x + 8)°$
   $m\angle B = (2x + 1)°$

Write a two-column proof. (2.5, 2.6)

3. **Given:** $\overline{AC} \cong \overline{BD}$
   Prove: $\overline{AB} \cong \overline{CD}$



4. **Given:** $\angle 1$ and $\angle 2$ are a linear pair.
   $\angle 2 \cong \angle 3$
   Prove: $\angle 1$ and $\angle 3$ are supplementary.



Write the equation of $\overleftrightarrow{AB}$. (3.6)

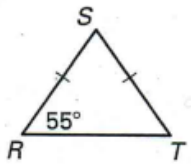
5. $A(3, -3), B(-4, 11)$

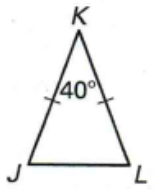
6. $A(-1, -8), B(2, 13)$

Find the unknown measure. (4.6)

7. $m\angle T =$?
   $m\angle S =$?

8. $m\angle J =$?
   $m\angle L =$?

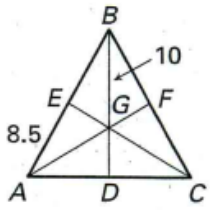




In Exercises 9 and 10, G is the centroid of $\triangle ABC$, and $\overline{BD} \perp \overline{AC}$. Find the given measure. (5.3)

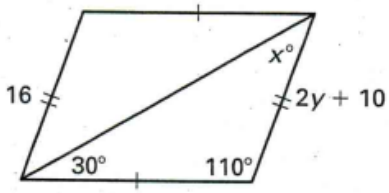
9. $AB =$?

10. $BD =$?



Find the value of x and y. (6.2)

11.



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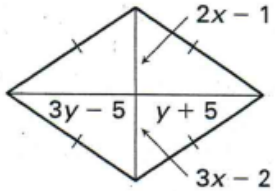


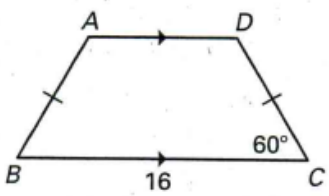
Consider the translation that is defined by $(x, y) \rightarrow (x - 3, y + 6)$. (7.4)

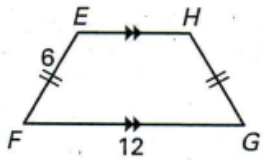
13. What is the image of $(2, 5)$?

***ABCD* ~ *EFGH* (8.3)**

14. Find AB.

15. Find $m\angle E$.





CHAPTER 10 CONTINUED

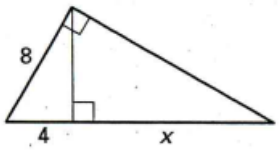
NAME _____ DATE _____

Cumulative Review

For use with Chapters 1–10

Find the value of the given variable. (9.1, 9.2)

16.



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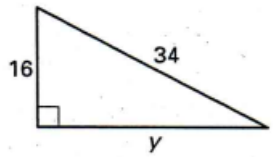
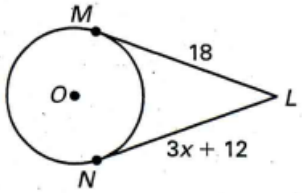


$\overline{LM}$ and $\overline{LN}$ are tangent to $\odot O$. Find the value of x. (10.1)

18.



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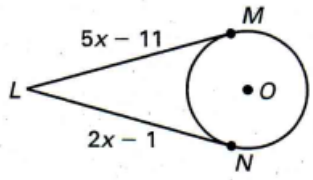
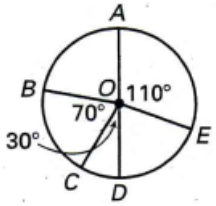


$\overline{AD}$ is a diameter of $\odot O$. Find the indicated measure. (10.2)

20. $m\widehat{ABC}$ = ?

21. $m\widehat{CDE}$ = ?



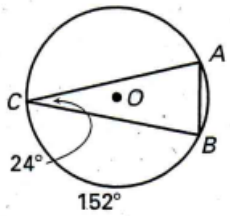
Find the measure of the arc or angle. (10.3, 10.4)

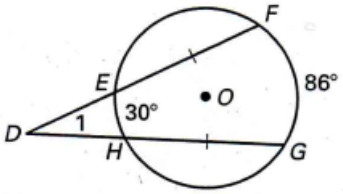
22. $m\widehat{AB}$ = ?

23. $m\widehat{AC}$ = ?

24. $m\angle 1$ = ?

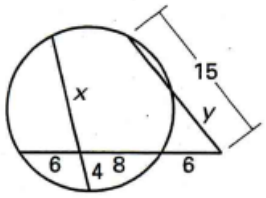
25. $m\widehat{EF}$ = ?



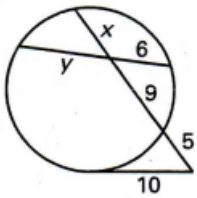


Find the value of x and y. (10.5)

26.



27.



Write the standard equation of a circle with the given center and radius. (10.6)

28. center $(2, 3)$ and radius $= 4$

29. center $(-1, 2)$ and radius $= 3$

Review and Assess

Cumulative Review

1. $m\angle A = 40°, m\angle B = 50°$ **2.** $m\angle A = 71°, m\angle B = 19°$

3.

Statements	Reasons
1. $\overline{AC} \cong \overline{BD}$	1. Given
2. $\overline{BC} \cong \overline{BC}$	2. Reflexive property
3. $\overline{AB} \cong \overline{CD}$	3. Subtraction prop. of equality

4.

Statements	Reasons
1. $\angle 1$ and $\angle 2$ are a linear pair.	1. Given
2. $\angle 1$ and $\angle 2$ are supplementary.	2. Linear Pair Postulate
3. $m\angle 1 + m\angle 2 = 180°$	3. Definition of supplementary $\triangleq$
4. $\angle 2 \cong \angle 3$	4. Given
5. $m\angle 2 = m\angle 3$	5. Def. of $\cong$ $\triangleq$
6. $m\angle 1 + m\angle 3 = 180°$	6. Substitution prop. of equality

5. $y = -2x + 3$ **6.** $y = 7x - 1$ **7.** $m\angle T = 55°, m\angle S = 70°$ **8.** $m\angle J = 70°, m\angle L = 70°$ **9.** 17 **10.** 15 **11.** $x = 40, y = 3$ **12.** $x = 1, y = 5$ **13.** $(-1, 11)$ **14.** 8 **15.** $120°$ **16.** 12 **17.** 30 **18.** 2 **19.** $\frac{10}{3}$ **20.** $150°$ **21.** $100°$ **22.** $48°$ **23.** $160°$ **24.** $28°$ **25.** $122°$ **26.** $x = 12, y = 8$ **27.** $x = 6, y = 9$ **28.** $(x - 2)^2 + (y - 3)^2 = 16$ **29.** $(x + 1)^2 + (y - 2)^2 = 9$