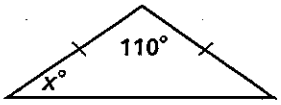
Name _____ Class _____ Date _____

Cumulative Review

Chapters 1–4

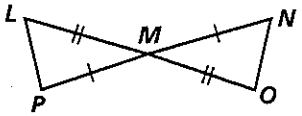
For Exercises 1–12, choose the correct letter.

1. Find the value of x.



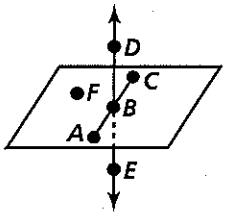
A. 110 **B.** 70 **C.** 45 **D.** 35

2. Why is $\triangle LMP \cong \triangle OMN$?



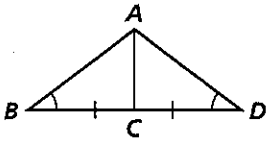
F. ASA **G.** SAS **H.** AAS **J.** SSS

3. What is the intersection of $\overleftrightarrow{DE}$ and plane FAC?



A. $\overline{AC}$ **B.** $\overleftrightarrow{DB}$ **C.** plane FAC **D.** point B

4. What can you conclude from the diagram?



F. $\triangle ABC \cong \triangle ADB$ **G.** $\overline{AC} \cong \overline{CD}$

H. $\triangle ABD$ is isosceles. **J.** $BD = 24$

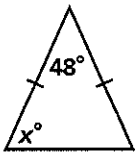
5. What is the area of a rectangle with vertices $(4, 6)$, $(0, 3)$, $(3, -1)$, and $(7, 2)$?

A. 10 **B.** 15 **C.** 20 **D.** 25

6. Pentagon $LMNOP \cong TQRSV$. Which segment is congruent to $\overline{TV}$?

F. $\overline{QR}$ **G.** $\overline{LP}$ **H.** $\overline{OP}$ **J.** $\overline{LM}$

7. What is the measure of x?



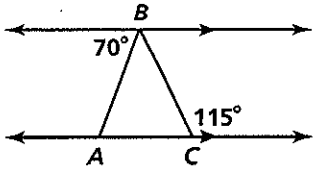
A. 66 **B.** 132 **C.** 48 **D.** 96

8. Which is true about all right triangles?

F. Two sides are congruent. **G.** They have two acute angles.

H. They have one obtuse angle. **J.** They have a second right triangle.

9. What is $m\angle ABC$?



A. 5 **B.** 65 **C.** 45 **D.** 70

Name _____ Class _____ Date _____

Cumulative Review (continued)

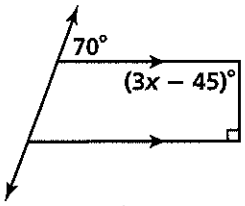
Chapters 1–4

10. If the midpoint of $\overline{AB}$ is $(4, 3)$ and point A has coordinates $(-2, 6)$, what are the coordinates of point B?

F. $(1, 4.5)$ **G.** $(10, 0)$ **H.** $(3, 1.5)$ **J.** $(2, 9)$

11. Find the value of x.

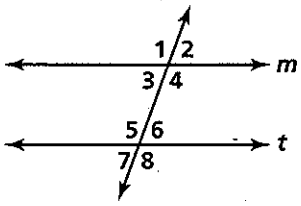
A. 45 **B.** 35 **C.** 30 **D.** 25



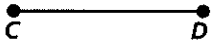
12. Which condition will prove that $m \parallel t$?

F. $\angle 1 \cong \angle 3$ **G.** $\angle 7 \cong \angle 6$

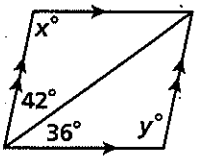
H. $m\angle 4 + m\angle 8 = 180$ **J.** $\angle 2 \cong \angle 6$



13. Construct the perpendicular bisector of $\overline{CD}$.



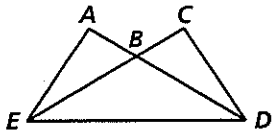
14. Find the measure of x and y.



15. The reasons in this proof are listed in the wrong order. Rewrite them in the correct order.

Given: $\overline{AE} \cong \overline{CD}$; $\angle AED \cong \angle CDE$

Prove: $\angle CED \cong \angle ADE$



Statements	*Reasons*
1. $\overline{AE} \cong \overline{CD}$	**a.** Reflexive Property
2. $\angle AED \cong \angle CDE$	**b.** SAS Theorem
3. $\overline{ED} \cong \overline{DE}$	**c.** Given
4. $\triangle AED \cong \triangle CDE$	**d.** CPCTC Theorem
5. $\angle CED \cong \angle ADE$	**e.** Given

16. Rewrite the proof in Exercise 15 as a flow proof.

17. **Open-Ended** Write a biconditional. Then write the two conditionals that make up the biconditional.

18. What conditions *do not* prove two triangles are congruent?