CHAPTER 7 CONTINUED

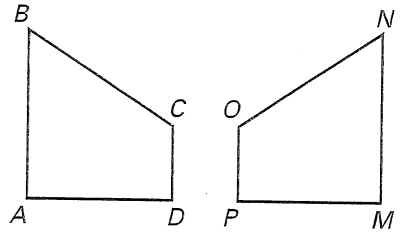
NAME _____ DATE _____

Cumulative Review

For use after Chapters 1–7

Use the diagrams to complete the statements. (7.1)

11. $\angle C \cong$?
12. $\overline{BC} \cong$?
13. $\overline{DA} \cong$?

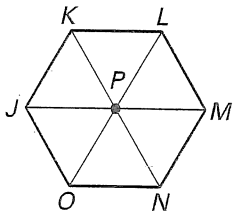


Decide whether the conclusion is *true* or *false*. (7.2)

14. If $A(4, 3)$ is reflected in the line $y = 2$, then A' is $(4, 1)$.
15. If $W(-3, 6)$ is reflected in the line $y = x$, then W' is $(3, 6)$.

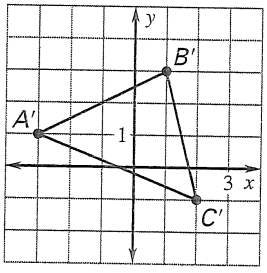
The diagonals of the regular hexagon below form six equilateral triangles. Use the diagram to complete the sentence. (7.3)

16. A clockwise rotation of 60° about P maps M on to ?.
17. A counterclockwise rotation of 180° about P maps ? on to N.
18. A clockwise rotation of 60° about J maps K on to ?.



The image of $\triangle ABC$ after a translation is shown below. Use the vector that describes the translation to give the vertices of the preimage. (7.4)

19. $\overrightarrow{PQ} = \langle 3, -1 \rangle$
20. $\overrightarrow{PQ} = \langle -2, 2 \rangle$
21. $\overrightarrow{PQ} = \langle -1, -2 \rangle$



Sketch the image of $\overline{AB}$ after a composition of the given transformations in the order in which they appear. (7.5)

22. $A(2, 3)$, $B(6, 6)$ *Reflection:* in the y axis; *Rotation:* 90° counterclockwise about the origin
23. $A(-4, 1)$, $B(1, 2)$ *Translation:* $(x, y) \rightarrow (x - 2, y + 1)$; *Reflection:* about the x-axis
24. $A(-3, 4)$, $B(-1, -2)$ *Rotation:* 90° about the origin; *Translation:* $(x, y) \rightarrow (x + 3, y + 1)$

Use the design below to create a frieze pattern with the given classification. (7.6)

25. TR
26. TRVG