Name _____ Date _____ Class _____

CHAPTER 6

Chapter Test

Form B

Circle the best answer.

1. Which best describes the figure?

A regular convex heptagon

B irregular convex heptagon

C irregular concave heptagon

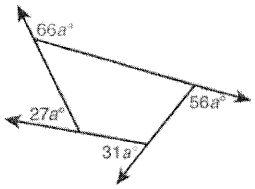
D irregular convex hexagon

2. What is the measure of each interior angle in a regular convex nonagon?

F 40° H 180°

G 140° J 1260°

3. What is the value of a?



A 2 C 180

B 90 D Not here

4. The diagonals of $\square ABCD$ intersect at X. Which is always true?

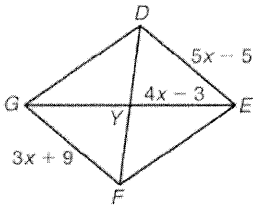
F $\overline{BX} \cong \overline{XD}$

G $\overline{AX} \cong \overline{XB}$

H $\angle A \cong \angle D$

J $m\angle A + m\angle C = 180°$

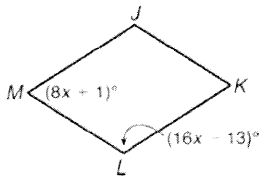
5. In $\square DEFG$, what is $\overline{EG}$?



A 25 C 50

B 30 D Not here

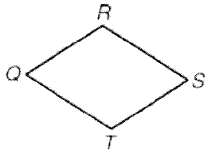
6. In $\square JKLM$, what is the value of $m\angle K$?



F 15° H 65°

G 57° J 115°

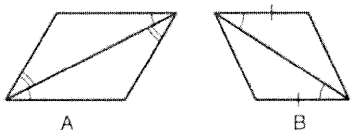
7. $\overline{QR} \parallel \overline{ST}$. Which additional information is NOT enough to conclude that $QRST$ is a parallelogram?



A $\overline{RS} \parallel \overline{QT}$ C $\overline{QR} \cong \overline{ST}$

B $\overline{RS} \cong \overline{QT}$ D $\angle Q \cong \angle S$

8. Which of the quadrilaterals MUST be parallelograms?



F A only H Neither A nor B

G B only J Both A and B

9. Which is NOT always true?

A The diagonals of a rectangle divide the rectangle into four nonoverlapping isosceles triangles.

B The diagonals of a square divide the square into four nonoverlapping right triangles.

C The longer diagonal of a rhombus is perpendicular to two sides of the rhombus.

D The sum of the lengths of the diagonals of a rhombus is less than the perimeter of the rhombus.

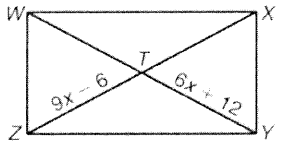
Name _____ Date _____ Class _____

CHAPTER 6

Chapter Test

Form B continued

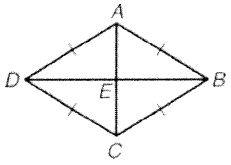
10. *WXYZ* is a rectangle. Which is NOT an expression for $\overline{WT}$?



F $5x + 18$ H $10x - 12$

G $7x + 6$ J $12x - 10$

11. Which set of numbers could be the measures of $\angle DAB$, $\angle ACB$, and $\angle DBC$, respectively?



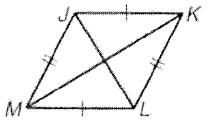
A 114°, 57°, 32.5°

B 115°, 32.5°, 57.5°

C 116°, 57.5°, 32.5°

D 117°, 58.5°, 31.5°

12. What additional information would allow you to conclude that *JKLM* is a rhombus?



F $\overline{JK} \parallel \overline{ML}$ and $\overline{JM} \parallel \overline{KL}$.

G $\overline{JM} \cong \overline{JK}$

H $\overline{JL}$ and $\overline{MK}$ bisect each other.

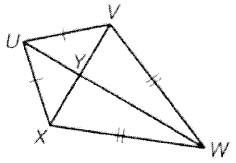
J $\overline{JL} \cong \overline{MK}$

13. Which is the best name for the quadrilateral with vertices at (2, 2), (5, –2), (1, –5), and (–2, –1)?

A parallelogram C rhombus

B rectangle D square

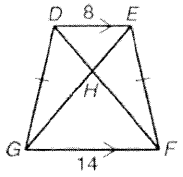
14. In kite *UVWX*, $m\angle XUV = 84°$, and $m\angle WVX = 68°$. What is $m\angle VWX$?



F 22° H 44°

G 42° J 45°

15. $GE = 5x + 2$ and $DF = 8x - 7$. What is *GE*?



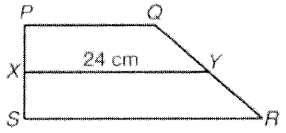
A 16

B 17

C 18

D 19

16. In trapezoid *PQRS*, if $\overline{YX}$ is the midsegment, what could be the lengths of $\overline{PQ}$ and $\overline{SR}$?



F 4 cm and 8 cm

G 9 cm and 15 cm

H 17 cm and 31 cm

J 18 m and 30 m