Name _____ Date _____ Class _____

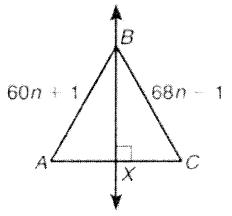
CHAPTER 5

Chapter Test

Form B

Circle the best answer.

1. $\overline{BX}$ is the perpendicular bisector of $\overline{AC}$. What is the value of n?



A 0 C 4

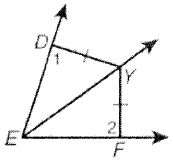
B $\frac{1}{4}$ D Not here

2. Which point is on the perpendicular bisector of the segment with endpoints (–2, 5) and (–2, –3)?

F (–2, 8) H (–2, 1)

G (–2, 4) J (1, –2)

3. What information is sufficient to allow you to conclude that Y is on the bisector of $\angle E$?



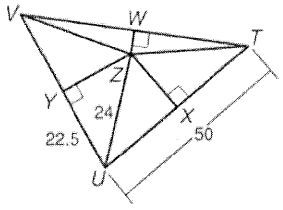
A $m\angle 1 = 90°$

B $m\angle 2 = 90°$

C $m\angle 1 = 90°$ and $m\angle 2 = 90°$

D $m\angle FYE + m\angle DYE = 90°$

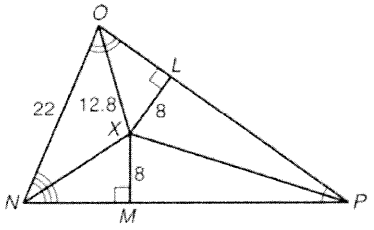
4. Point Z is the circumcenter of $\triangle TUV$. What is the value of UV?



F 33.75 H 50

G 45 J Not here

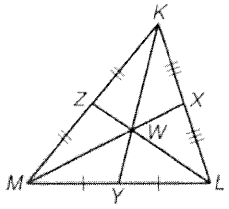
5. What is the distance from X to $\overline{ON}$?



A 8 C 11

B 12.8 D 12

6. If $WX = 3.6$, $WL = 6.1$, and $KW = 8$, what is the value of ZW?



F 3.05 H 4

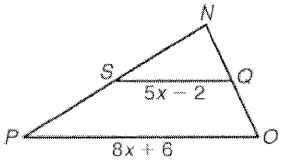
G 3.6 J 4.06

7. Which is the orthocenter of a triangle with vertices (–2, 1), (3, 4), and (3, –4)?

A (0, 1) C (6, 1)

B (1, 0) D (8, 1)

8. $\overline{SQ}$ is a midsegment of $\triangle NOP$. What is the length of $\overline{OP}$?



F 5 H 23

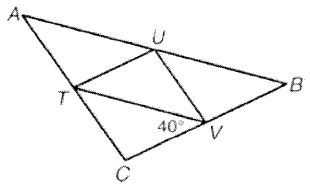
G 14 J 46

CHAPTER 5

Chapter Test

Form B continued

9. $\triangle TUV$ is the midsegment triangle of $\triangle ABC$. Which angle does NOT necessarily measure 40°?



A $\angle VTU$ C $\angle CTV$

B $\angle TUA$ D $\angle VBU$

10. Which statement is used in an indirect proof to show that an equiangular triangle cannot have a right angle?

F Isosc. $\triangle$ Thm.

G $\triangle$ Sum Thm.

H Rt. $\angle \cong$ Thm.

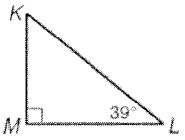
J Acute $\underline{/s}$ of a rt. $\triangle$ are complementary.

11. The lengths of two sides of a triangle are 7 and 11. Which could NOT be the length of the third side?

A 5 C 12

B 10 D 19

12. Which statement is false?



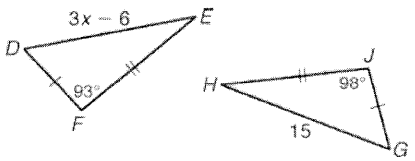
F $\triangle KLM$ is scalene.

G $ML + KM > KL$

H $m\angle L < m\angle K$

J $KM > ML$

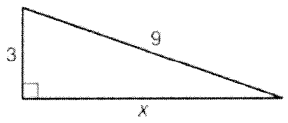
13. Which best describes the range of values for x?



A $0 < x < 7$ C $x < 15$

B $0 < x < 15$ D $6 < x < 7$

14. What is the value of x in simplest radical form?



F $3\sqrt{12}$ H $\sqrt{72}$

G $6\sqrt{2}$ J $\sqrt{89}$

15. Which numbers form a Pythagorean triple?

A 3, 4, 6 C 9, 12, 15

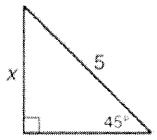
B 7, $6\sqrt{2}$, 11 D 8, 15, 18

16. Which side length will form an obtuse triangle with sides of length 8 and 10?

F 6 H 12

G 9 J 13

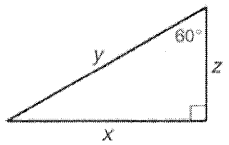
17. What is the value of x in simplest radical form?



A 2.5 C $\frac{5\sqrt{2}}{2}$

B $\frac{5}{\sqrt{2}}$ D $5\sqrt{2}$

18. Which is a correct set of values?



F $x = 27,\ y = 9\sqrt{3},\ z = 18\sqrt{3}$

G $x = 27,\ y = 18\sqrt{3},\ z = 9\sqrt{3}$

H $x = 9\sqrt{3},\ y = 27,\ z = 18\sqrt{3}$

J $x = 18\sqrt{3},\ y = 9\sqrt{3},\ z = 27$