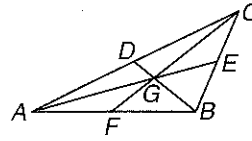


5 Chapter 5 Test, Form 3

1. If point G is the centroid of $\triangle ABC$, $AE = 24$, $DG = 5$, and $CG = 14$, find DB .

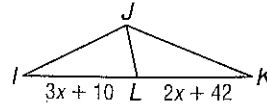


1. _____

2. If $\triangle EFG$ has vertices at $E(2, 4)$, $F(10, -6)$, and $G(-4, -8)$, find the coordinates of the orthocenter of $\triangle EFG$.

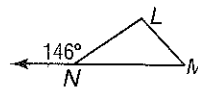
2. _____

3. If \overline{JL} is a median for $\triangle IJK$, find x .



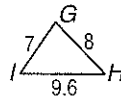
3. _____

4. Write a compound inequality for the possible measures of $\angle L$.



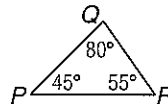
4. _____

5. List the angles of $\triangle GHI$ in order from least to greatest measure.



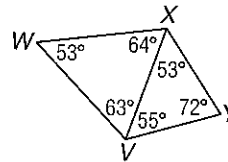
5. _____

6. List the sides of $\triangle PQR$ in order from shortest to longest.



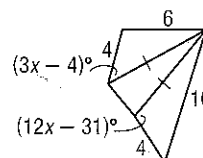
6. _____

7. Name the shortest and the longest segments.



7. _____

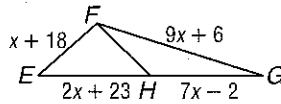
11. Write and solve an inequality to find x .



11. _____

5 Chapter 5 Test, Form 3 (continued)

12. If \overline{FH} is a median of $\triangle EFG$, find the perimeter of $\triangle EFG$.

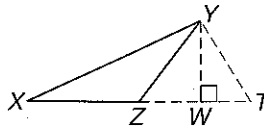


12. _____

14. If the lengths of two sides of a triangle are 24 inches and 29 inches, then the third side must have a length between what two measures?

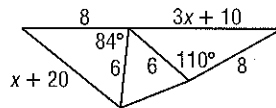
14. _____

15. Name the shortest distance from Y to \overline{XZ} .



15. _____

16. Write and solve an inequality to find x .

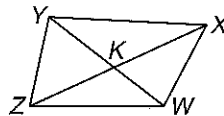


16. _____

For Questions 17-20, complete the proof below by supplying the missing information for each corresponding location.

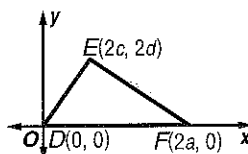
Given: $XW = YZ$, $XK > WK$, and $KZ > KY$

Prove: $m\angle XWZ > m\angle YZW$



Statements	Reasons	
1. $XW = YZ$, $XK > WK$, and $KZ > KY$	1. Given	17. _____
2. $XW \cong YZ$	2. (Question 17)	18. _____
3. $XZ > WY$	3. (Question 18)	19. _____
4. $WZ \cong WZ$	4. (Question 19)	20. _____
5. $m\angle XWZ > m\angle YZW$	5. (Question 20)	

Bonus Write an equation in slope-intercept form for the line containing the median to \overline{DE} .



B: _____

Chapter 5 Assessment Answer Key

Form 3
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1. 15

12. 140

2. $\left(\frac{38}{13}, -\frac{32}{13}\right)$

13. $\angle B \cong \angle E$

3. 32

14. 5 in. and 53 in.

4. $146 > m\angle L > 0$

15. YW

5. $\angle H, \angle I, \angle G$

6. $\overline{QR}, \overline{PQ}, \overline{PR}$

16. $x > 5$

7. shortest: \overline{VY} ;
longest: \overline{VW}

8. $x \neq 3$

17. Def. of \cong segments

9. $x + y = 7$ and
 $4y - 3x = 14$ so
 $x = 2, y = 5$, and
 $TC = TA = 22$. So,
 T lies on \overline{BD} .

18. Addition Prop. of
Inequality

10. The \angle bisectors are
not concurrent.

19. Reflexive Prop.

11. $x > 3$

20. SSS Inequality

B: $y = \frac{d}{c-2a}x - \frac{2ad}{c-2a}$

Answers