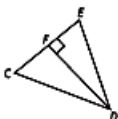


### 5-1 Lesson Quiz

Perpendicular and Angle Bisectors

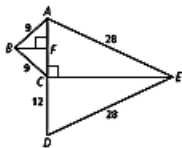
1. If  $CF = 5$ ,  $CD = 12$ , and  $EF = 5$ , what is the perimeter of  $\triangle CDE$ ?

- (A) 29
- (B) 30
- (C) 34
- (D) 36



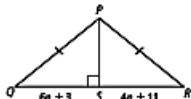
2. What is the value of  $FC$ ?

- (A) 63
- (B) 4
- (C) 6
- (D) 9



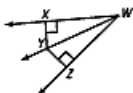
3. Which statement about the figure **MUST** be true? Select all that apply.

- (A)  $n = 7$
- (B)  $QS = 21$
- (C)  $SR = 27$
- (D)  $QR = 54$



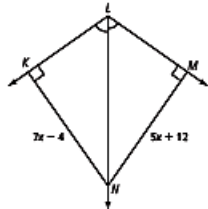
4. If  $m\angle XWY = 20^\circ$ ,  $m\angle XWZ = 40^\circ$ , and  $XY = 16$ , what is the value of  $YZ$ ?

16



5. Which descriptions of the figure **MUST** be true? Select all that apply.

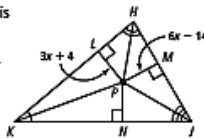
- (A)  $x = 8$
- (B)  $KN = 24$
- (C)  $MN = 52$
- (D)  $\overline{KL} \cong \overline{ML}$
- (E)  $\overline{LN} \cong \overline{LM}$



### 5-2 Lesson Quiz

1. What conditions would be enough to prove that  $P$  is the circumcenter of  $\triangle HJK$ ? Select all that apply.

- (A)  $L, M,$  and  $N$  are the midpoints of  $\overline{HK}$ ,  $\overline{HJ}$  and  $\overline{KJ}$ .
- (B)  $\overline{PL} \cong \overline{PM} \cong \overline{PN}$
- (C)  $\overline{PK} \cong \overline{HP} \cong \overline{PJ}$
- (D)  $\triangle HJK$  is an acute triangle



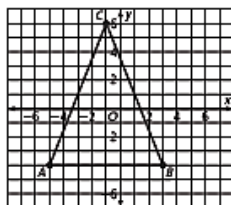
2. What is the radius of the inscribed circle of  $\triangle HJK$ ?

- (A) 2
- (B) 6
- (C) 10
- (D) 22

3. What are the coordinates of the circumcenter of  $\triangle ABC$ ?  $(-1, 0.2)$

4. What type of triangle will have a circumcenter outside the triangle?  
**obtuse triangle**

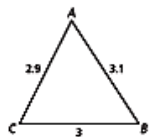
5. Where is the center of a triangle always located?  
**inside the triangle**



### 5-4 Lesson Quiz

1. Which of the following angle relationships in  $\triangle ABC$  are correct? Select all that apply.

- (A)  $m\angle A < m\angle C$
- (B)  $m\angle B = m\angle C$
- (C)  $m\angle A < m\angle B$
- (D)  $m\angle B < m\angle A < m\angle C$



2. Which of the following side-angle relationships in  $\triangle ABC$  are true? Select all that apply.

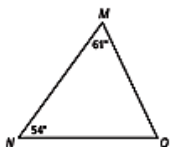
- (A) The largest angle is opposite the smallest side.
- (B) The smallest angle is opposite the largest side.
- (C) The smallest angle is opposite the smallest side.
- (D) The largest angle is opposite the largest side.

3. In  $\triangle XYZ$ , suppose  $XY < XZ$ . What inequality relates two angles in  $\triangle XYZ$ ?

$m\angle Z < m\angle Y, m\angle Y > m\angle Z$

4. What are the sides of  $\triangle MNO$  listed from shortest to longest?

$\overline{MO}, \overline{NO}, \overline{MN}$

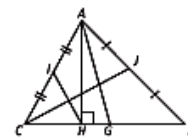


5. A triangle has two sides measuring 8.5 cm and 15 cm. What are the least and greatest whole number possibilities for the third side?  
**7, 23**

### 5-3 Lesson Quiz

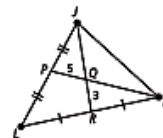
1. Which of the following statements are true for  $\triangle ABC$ ? Select all that apply.

- (A)  $\overline{AH}$  is an altitude.
- (B)  $\overline{IH}$  is a median.
- (C)  $\overline{JC}$  is a median.
- (D) The medians and altitudes intersect at the same point.



2. In  $\triangle JKL$ , what are  $PK$  and  $RJ$ ?

- (A)  $PK = 10, RJ = 6$
- (B)  $PK = 15, RJ = 9$
- (C)  $PK = 6, RJ = 10$
- (D)  $PK = 9, RJ = 15$



Items 3–5. Use the graph of  $\triangle ABC$ .

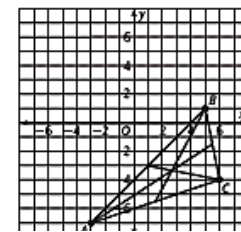
3. What is the centroid?

$(2\frac{2}{3}, -3\frac{1}{3})$

4. What is the orthocenter?

$(7, -5)$

5. Given the location of the orthocenter, what type of triangle is  $\triangle ABC$ ?  
**obtuse**



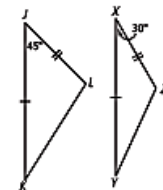
### 5-5 Lesson Quiz

1. Which of the following relates the sides of the triangles shown? Select all that apply.

- (A)  $b > a$
- (B)  $c > a$
- (C)  $b < c$
- (D)  $a < b < c$



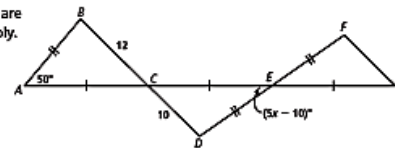
2. What is an inequality that relates  $KL$  and  $YZ$  in  $\triangle JKL$  and  $\triangle XYZ$ ?  
 **$KL > YZ$**



Items 3–5. Use the diagram shown at the right.

3. Which of the following are true? Select all that apply.

- (A)  $m\angle CED = m\angle CAB$
- (B)  $m\angle CAB > m\angle CED$
- (C)  $BC > FG$
- (D)  $FG = 10$



4. Write an inequality to describe the possible values of  $x$ .  
 **$2 < x < 12$**

5. Write an equality or inequality that relates  $m\angle B$  to  $m\angle D$ .  
 **$m\angle B < m\angle D$**