

**LESSON**  
**8.5**

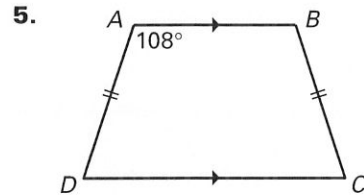
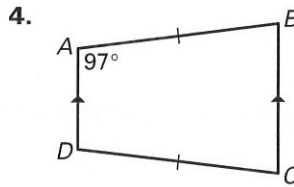
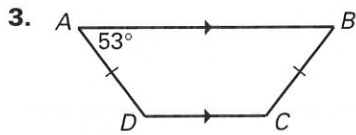
**Practice A**

For use with the lesson "Use Properties of Trapezoids and Kites"

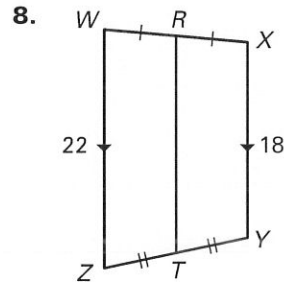
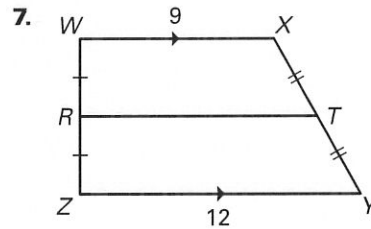
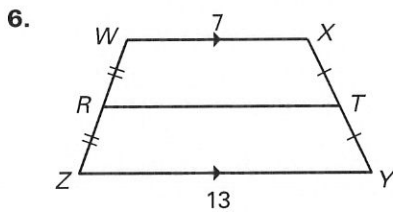
**Points  $J, K, L,$  and  $M$  are the vertices of a quadrilateral. Determine whether  $JKLM$  is a trapezoid.**

- $J(-1, -1), K(0, 3), L(3, 3), M(4, -1)$
- $J(-4, -2), K(-4, 3), L(2, 3), M(3, -5)$

**Find  $m\angle B, m\angle C,$  and  $m\angle D.$**



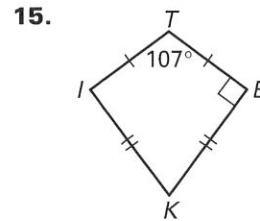
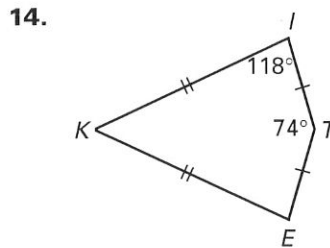
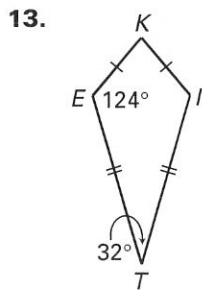
**Find the length of the midsegment  $\overline{RT}.$**



**Tell whether the statement is *always, sometimes, or never* true.**

- A trapezoid is a parallelogram.
- The bases of a trapezoid are parallel.
- The base angles of an isosceles trapezoid are congruent.
- The legs of a trapezoid are congruent.

**KITE is a kite. Find  $m\angle K.$**

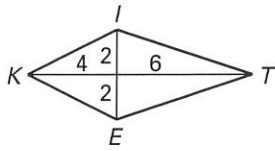


**LESSON 8.5**

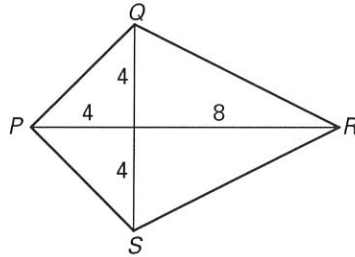
**Practice A** *continued*  
For use with the lesson "Use Properties of Trapezoids and Kites"

**Use Theorem 18 and the Pythagorean Theorem to find the side lengths of the kite. Write the lengths in simplest radical form.**

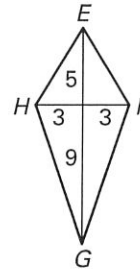
16.



17.

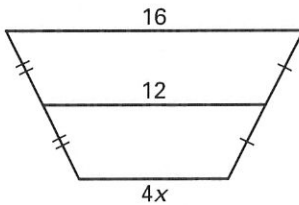


18.

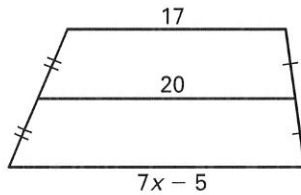


**Find the value of  $x$ .**

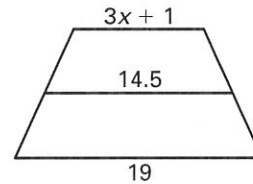
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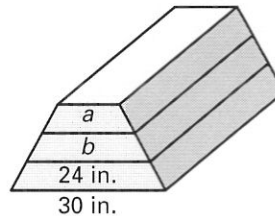
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21.



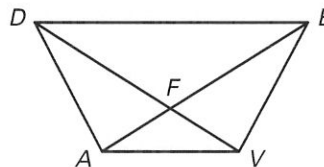
**22. Vaulting Box** Three vaulting boxes used by a gymnastics team are stacked on top of each other as shown. The sides are in the shape of a trapezoid. Find the lengths of  $a$  and  $b$ .



**23.** Complete the proof.

**GIVEN:**  $\overline{DE} \parallel \overline{AV}$ ,  
 $\triangle DAV \cong \triangle EVA$

**PROVE:**  $DAVE$  is an isosceles trapezoid.



Statements	Reasons
1. $\overline{DE} \parallel \overline{AV}$	1. ?
2. $DAVE$ is a trapezoid.	2. ?
3. ?	3. Given
4. ?	4. Corresponding parts of $\cong \triangle$ are $\cong$ .
5. $DAVE$ is an isosceles trapezoid.	5. ?