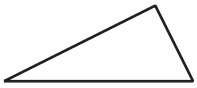
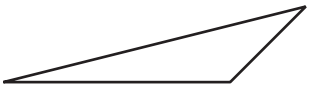
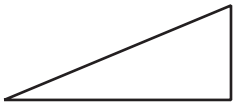
Properties of Two-dimensional Shapes: End-of-Unit Assessment

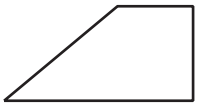
1. Select **all** right triangles.

A. 

B. 

C. 

D. 

E. 

2. Which statement is true?

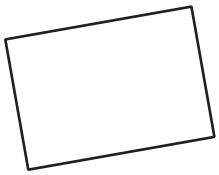
A. A right triangle never has a line of symmetry.

B. A right triangle sometimes has a line of symmetry.

C. A right triangle always has a line of symmetry.

D. If a triangle has a line of symmetry then it is a right triangle.

3. a. Is the shape a rhombus? Is it a rectangle? Explain how you know.



b. Is the shape a rhombus? Is it a square? Explain how you know.

4. Select **all** true statements.

A. All rhombuses have a right angle.

B. All rectangles have a right angle.

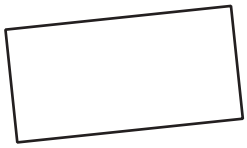
C. Lines containing opposite sides of rectangles are parallel.

D. Some rhombuses have an obtuse angle.

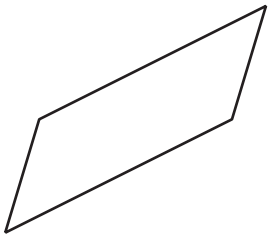
E. Some rectangles have an obtuse angle.

5. For each shape, draw **all** lines of symmetry.

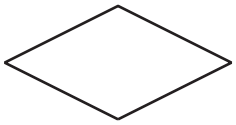
a.



b.



c.



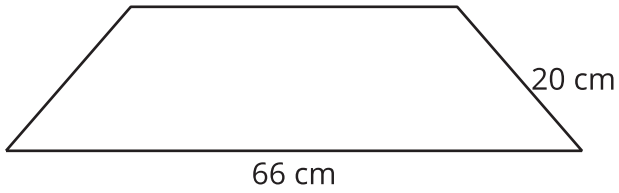
6. Elena, Tyler, and Mai each are making a frame for artwork so that:

   - the frame is a quadrilateral
   - the perimeter is 146 cm

   a. Elena says she can make a square frame where each side has length 37 cm. Do you agree with Elena? Explain or show your reasoning.

   b. Tyler says he is going to make a rectangular frame whose length is 29 cm. What will the width of Tyler's frame be? Explain or show your reasoning.

c. Mai decided to make this frame that has a line of symmetry.



What are the other two side lengths of Mai's frame? Explain or show your reasoning.