COASTMETRO
ELEMENTARY MATH PROJECT

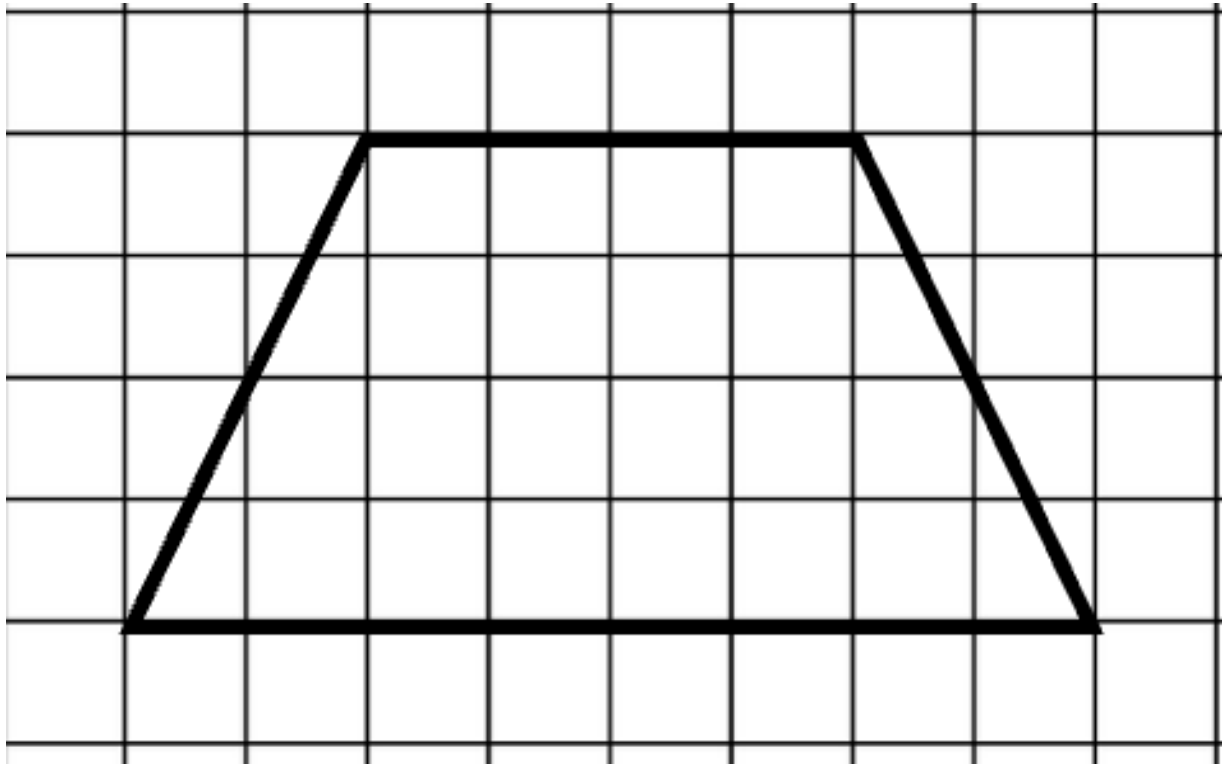
GRADE 6 PRACTICE QUESTIONS

MEASUREMENT

GRADE 6 MEASUREMENT

CLOSED QUESTIONS

1. Find the area of each shape on the grid.



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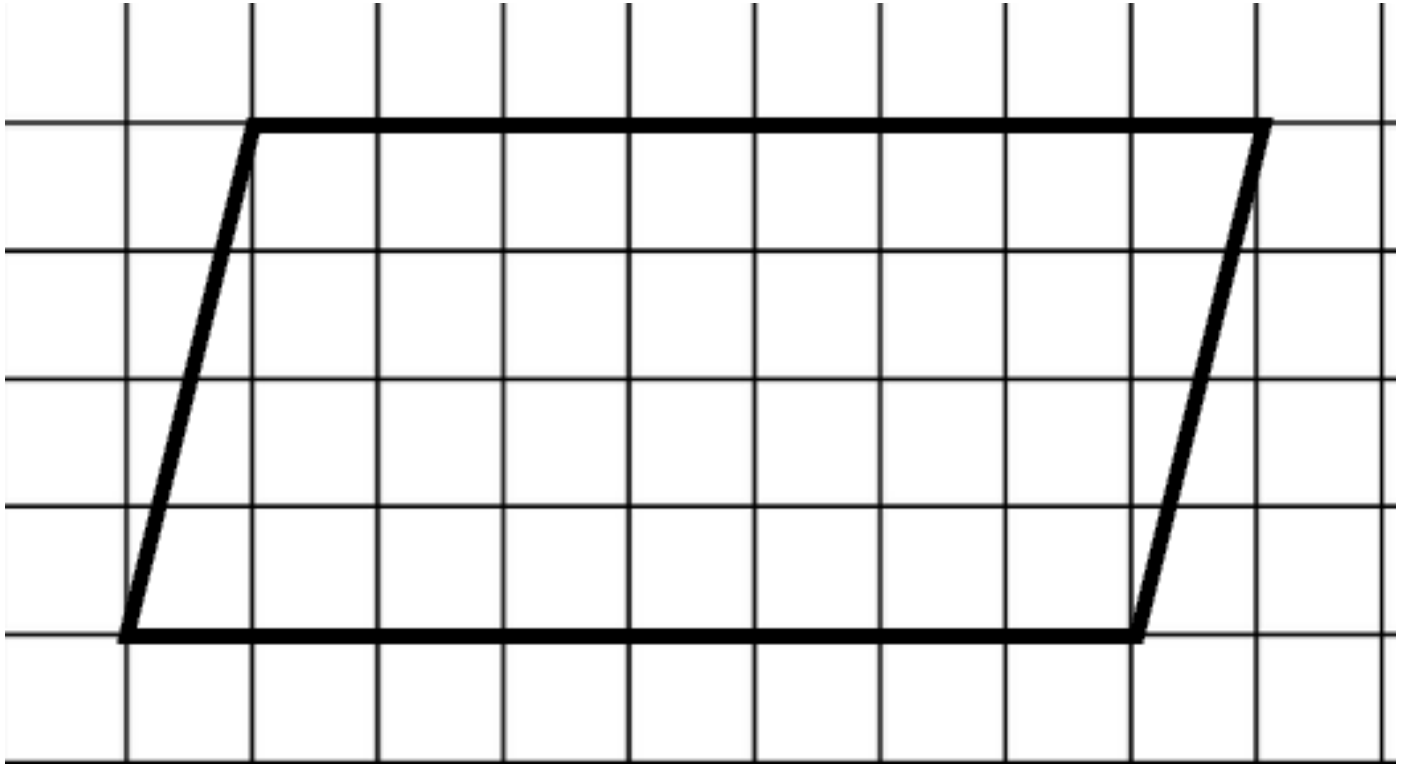

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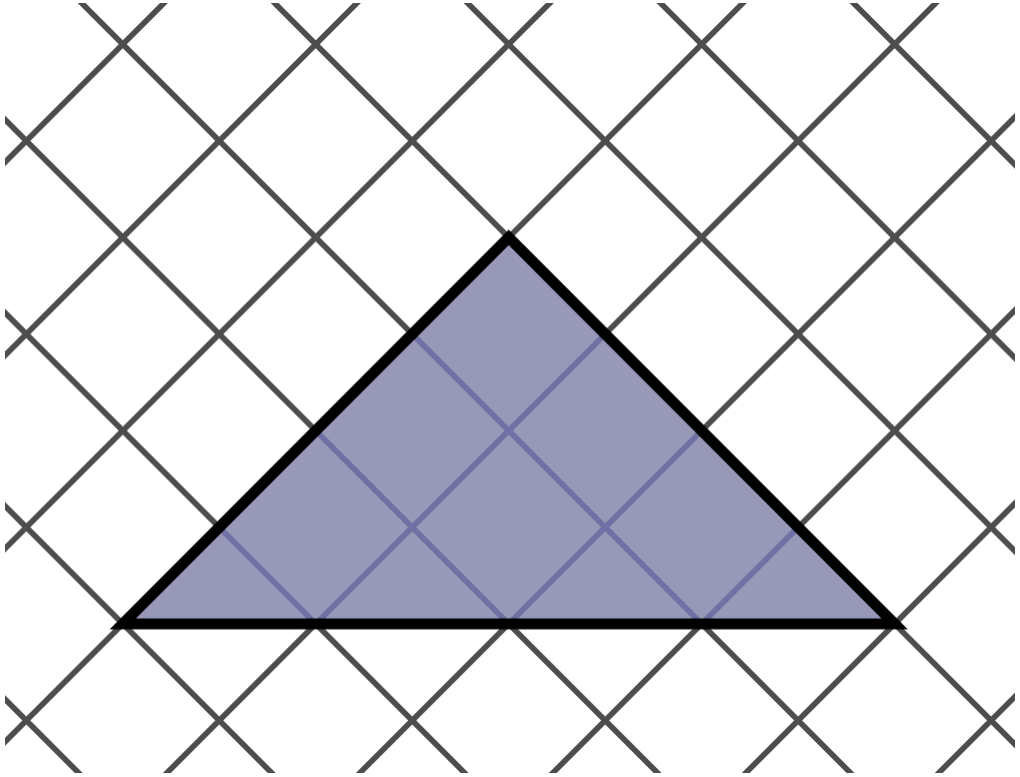


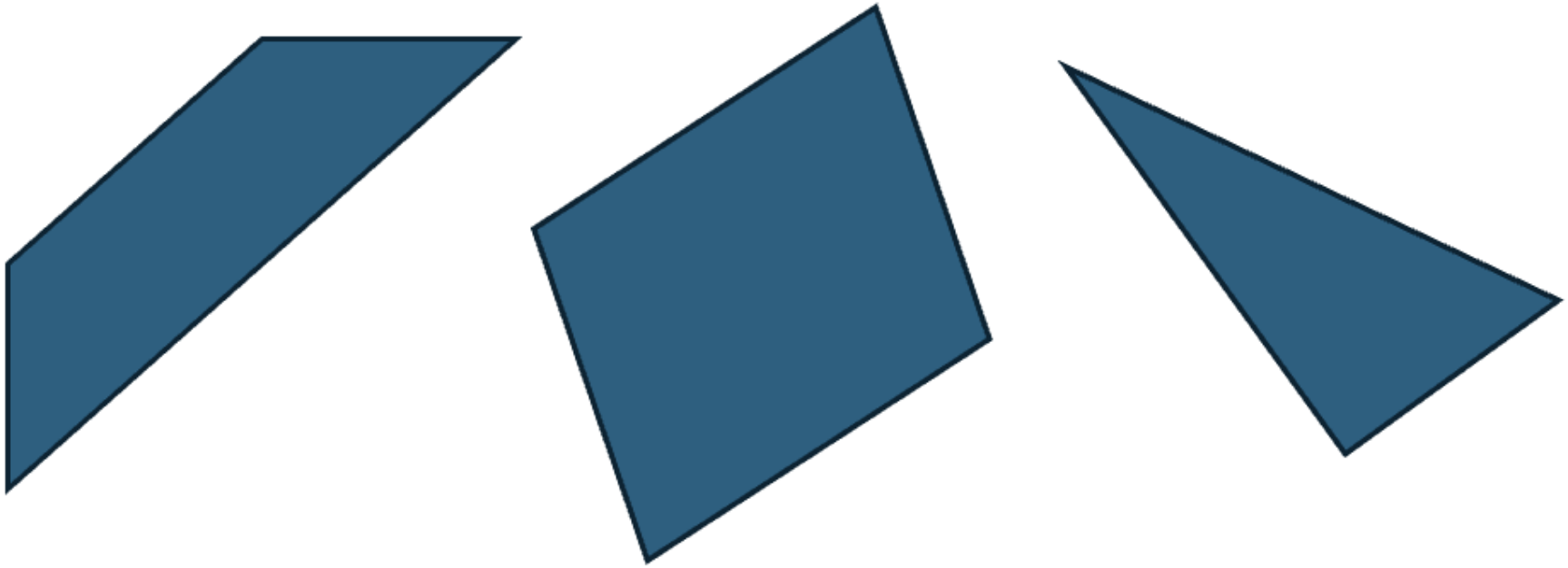
2. A triangle has a height of 4 cm and a base of 5 cm.

a. What is the area of the triangle?

b. If you put 2 of the triangles together, what would be the area of the parallelogram they create?

GRADE 6 MEASUREMENT
CLOSED QUESTIONS

3. Find the area of each shape.

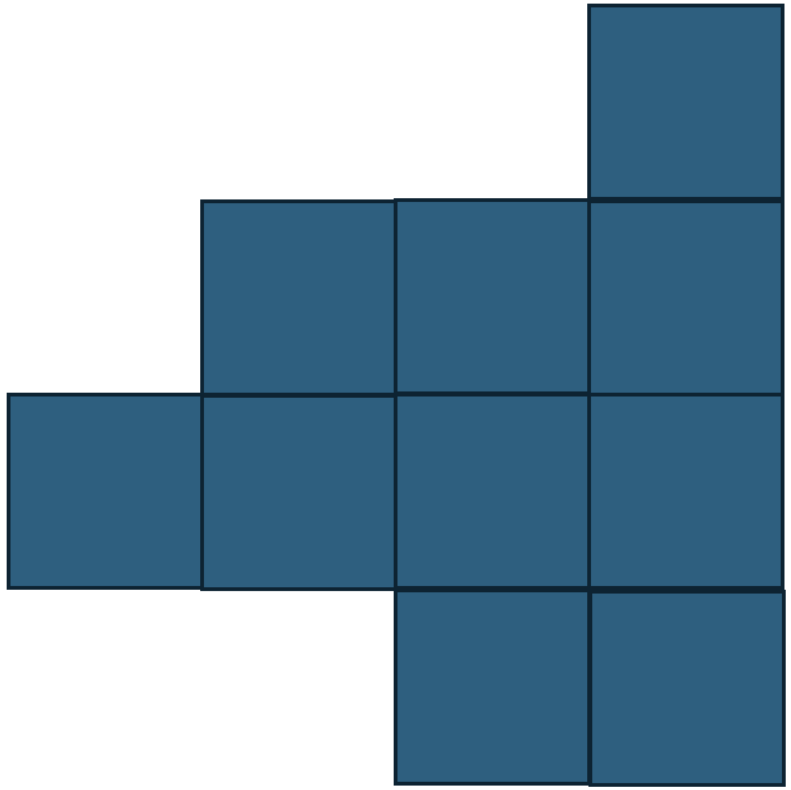


4. A farmer has a rectangular field, with a length of 115 meters and a width of 82 meters. The farmer wants to build a fence across the diagonal to create 2 triangular fields, so they can keep goats on one side and cows on the other. What will the area of each of the new triangular fields be?

GRADE 6 MEASUREMENT

CLOSED QUESTIONS

5. Determine the perimeter of the shape below if each square has a side length of 2 cm. Can you arrange the squares into a different shape that has the same perimeter?

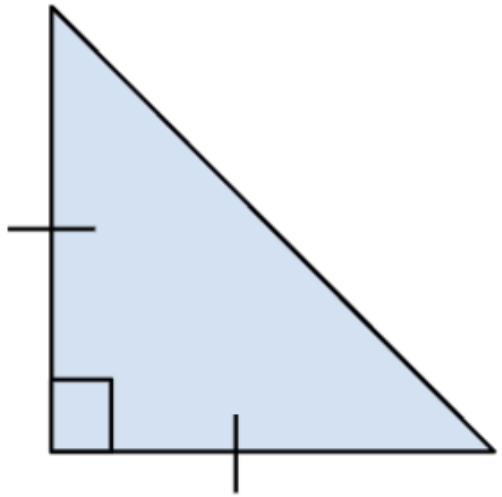


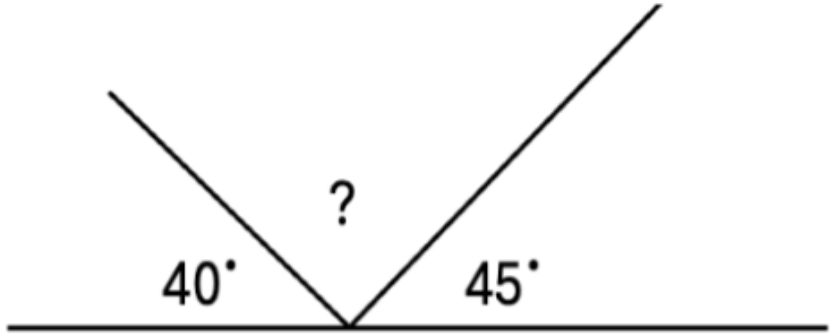
GRADE 6 MEASUREMENT
CLOSED QUESTIONS

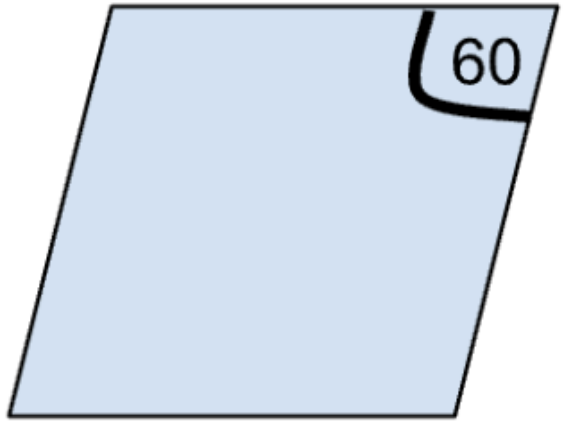
6. Measure and name each of the angles in this shape.

GRADE 6 MEASUREMENT
CLOSED QUESTIONS

7. Find the missing angle measurements.







8. Draw two different triangles that each have the same area. Explain the strategy you used to create the drawings.

9. Use pictures, numbers and words to explain how finding the area of a parallelogram is similar to finding the area of a rectangle.

10. Build a shape using at least 6 pattern blocks:

a. Determine the length of the perimeter.

b. Measure each of the angles in the shape.

c. What strategy would you use to determine the area?

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GRADE 6 PRACTICE QUESTIONS

GEOMETRY

GRADE 6 GEOMETRY
CLOSED QUESTIONS

1. Draw an example of each angle (acute, obtuse, reflex, straight or right) or draw a shape that includes at least one of each type of angle.

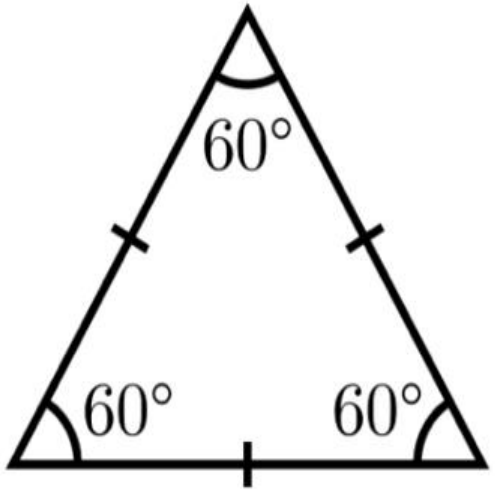
2. Draw examples of the six different types of triangles. Label each triangle with its angle and side measurements and include the name of the type of triangle.

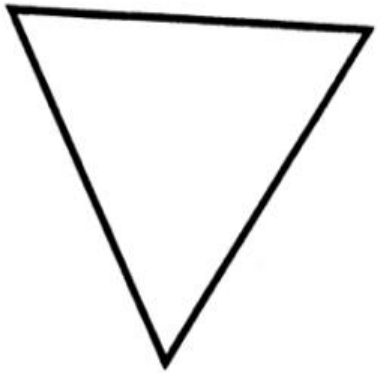
GRADE 6 GEOMETRY
CLOSED QUESTIONS

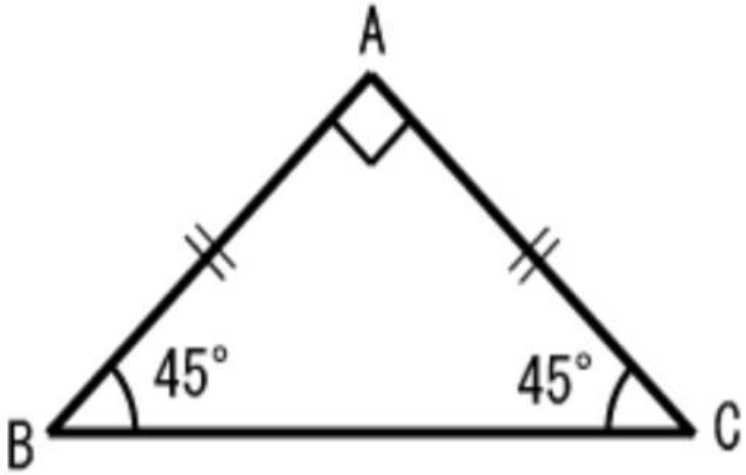
3. Look at these triangles.

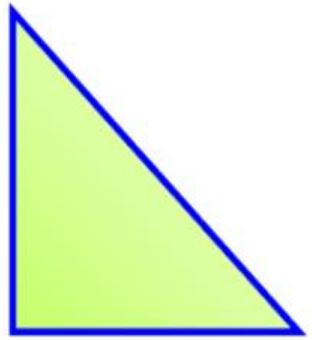
a. What kinds of triangles are not represented in the set?

b. Which types of angles are not represented?

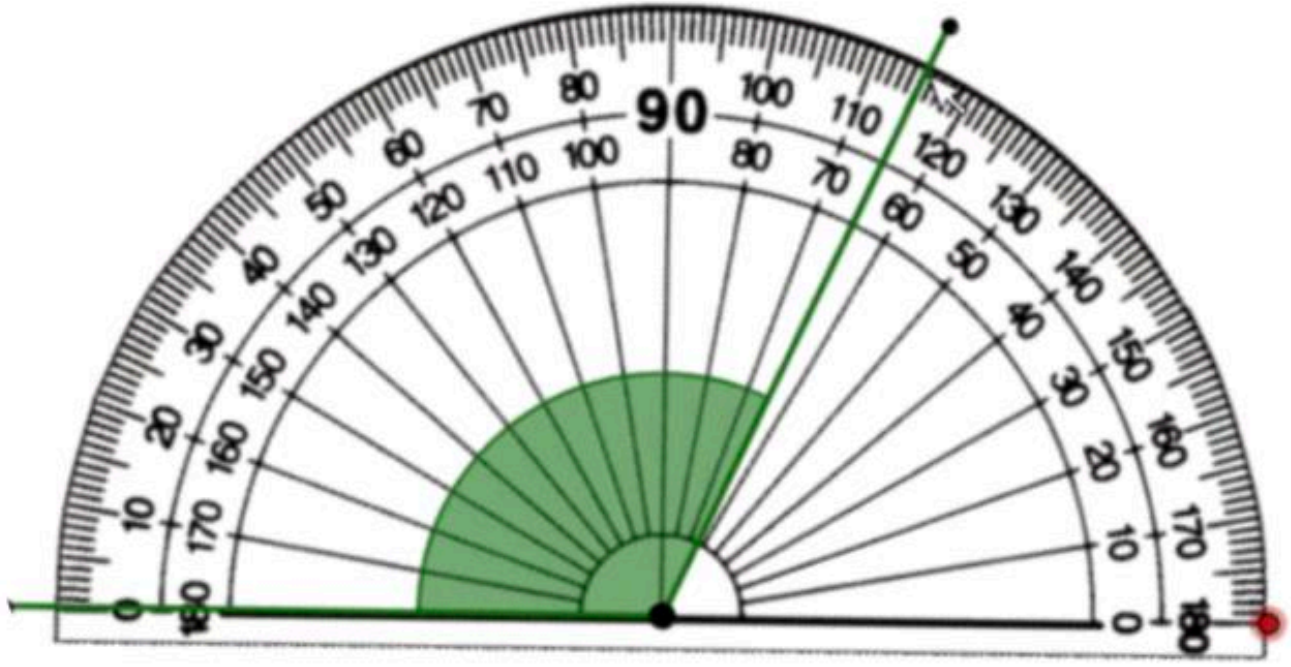








4. One student says that the angle below is 115 degrees and another says that it is 65 degrees. Which student is correct?

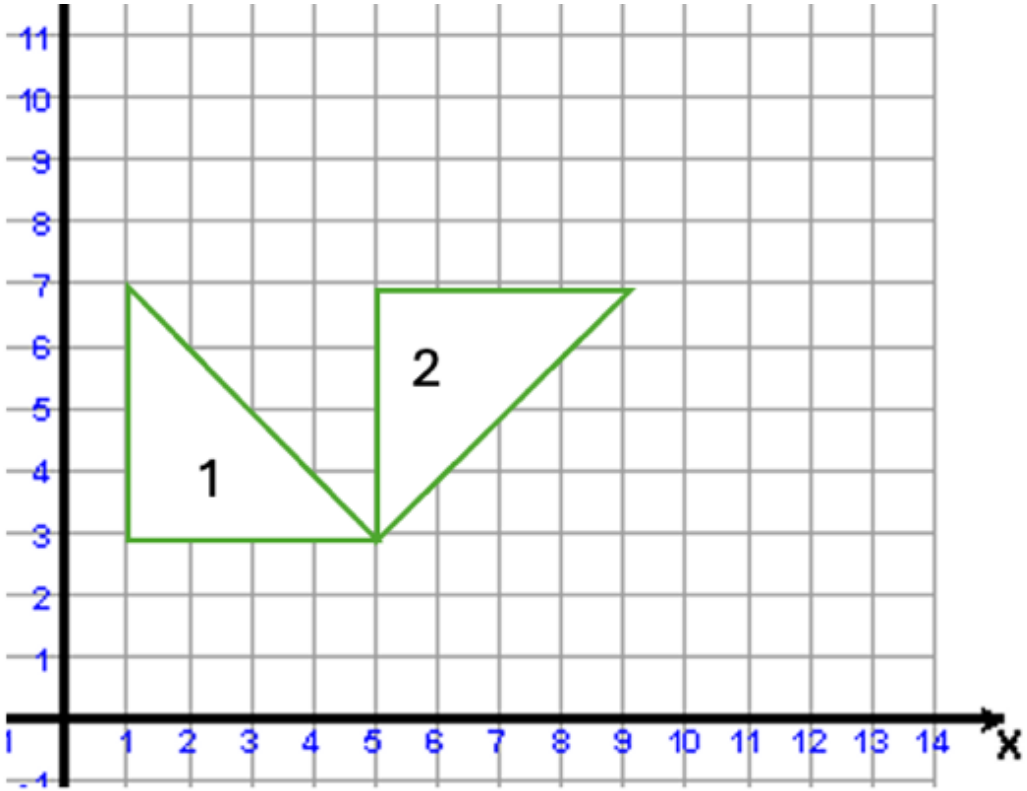


5. Label each set of triangle attributes as possible or impossible. Draw or use materials to help you test each one.

a. A triangle with 2 obtuse angles.
b. A triangle with 3 60 degree angles.
c. A triangle with 1 right angle and 2 sides that are each 3 cm long.
d. A triangle with 2 acute angles.
e. A triangle with a 210 degree angle.

GRADE 6 GEOMETRY
CLOSED QUESTIONS

6. Describe each of the transformations in the images to the right. There may be more than one transformation required for the shape to get to position 2.



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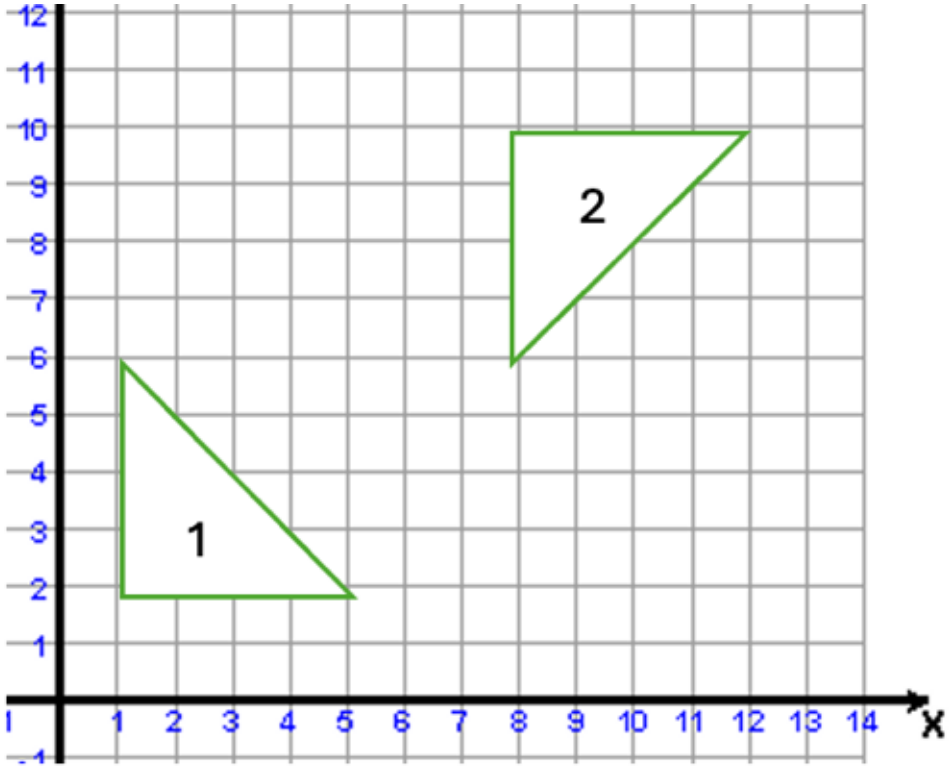

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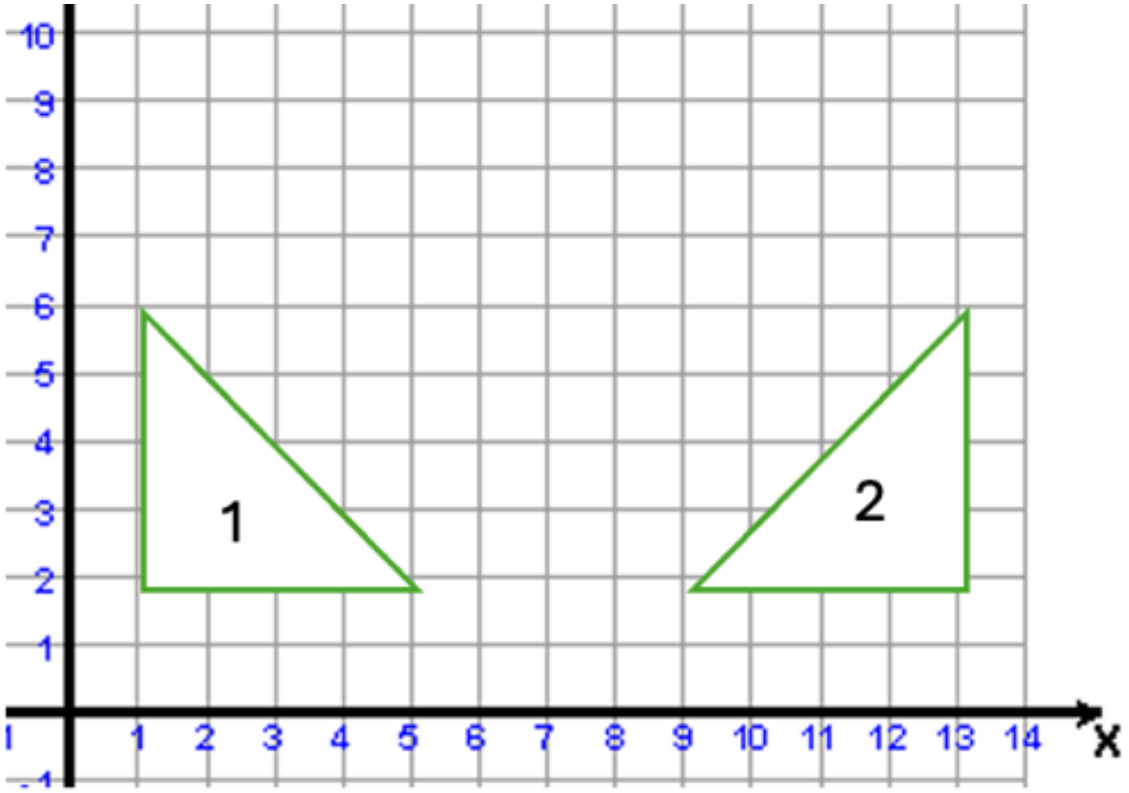

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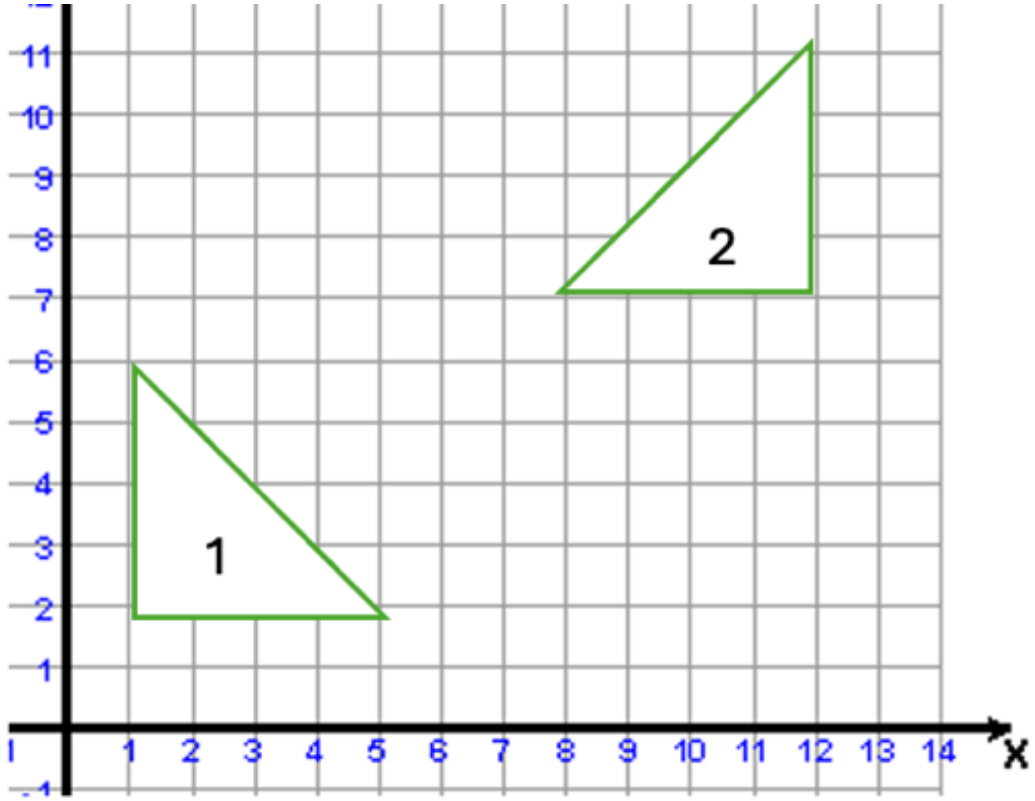

7. Draw a shape on the Cartesian Plane. Perform at least 3 different transformations using the shape. Describe each transformation.

8. Create 2 triangles using materials or drawings. How are they the same? How are they different? Measure and label the sides and angles. How does this information help you classify each triangle?

9. Ari tells Lochlan that all equilateral triangles are the same, but that the other kinds of triangles are all different. What does she mean by that? Do you agree or disagree?

10. Create an art project (drawing, painting, model) with a variety of objects/shapes. Your drawing must include at least 6 transformations (rotation, reflection, transformation). Some of these transformations should be sequential (more than one transformation of the same shape. Write a journal to describe your piece that explains how you used the transformations to create it.