

Geometry

Winter Student Enrichment Packet



Detroit Public Schools Community District
Department of Curriculum and Instruction
Office of Mathematics

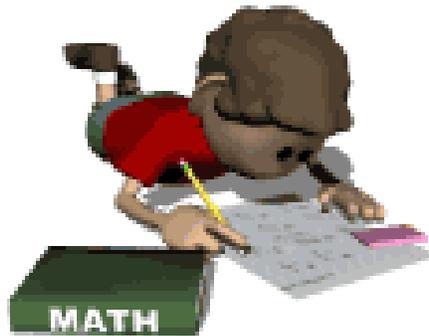


Adapted from Prince George's County Public Schools

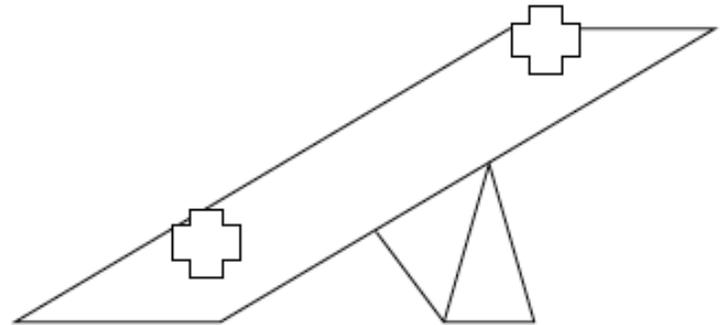
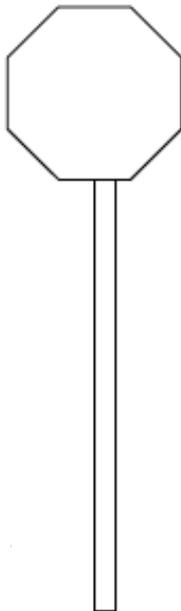
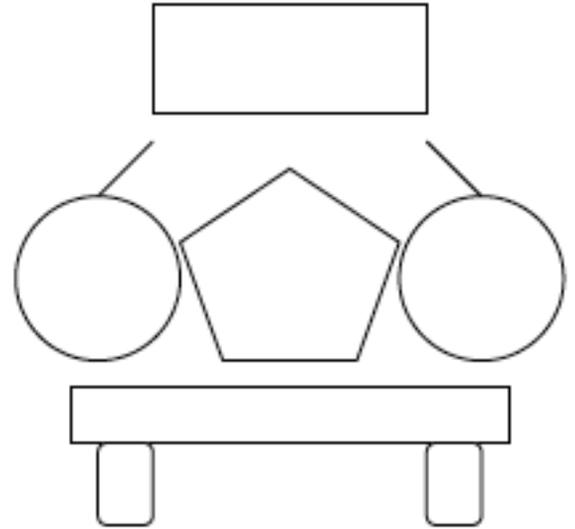
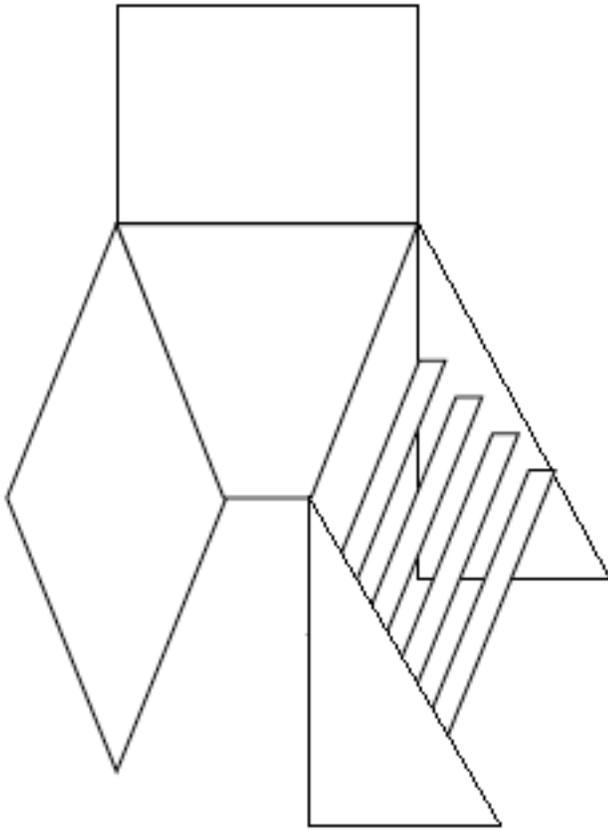
NOTE TO STUDENT

*This Winter Student Enrichment Packet has been compiled to complement high school mathematics classroom instruction aligned to Maryland College and Career-Ready Standards (MCCRS). It is intended to be used for **review and practice** of previously taught and new concepts.*

We strongly encourage you to work diligently to complete the activities in this packet. You may experience some difficulty with some problems in this packet, but we encourage you to explore and attempt to find a solution to the best of your ability.

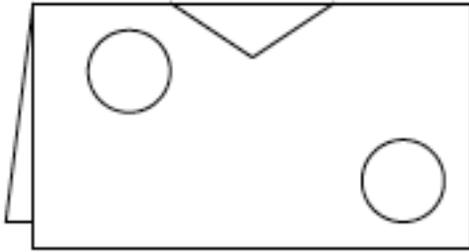


Playground Fun



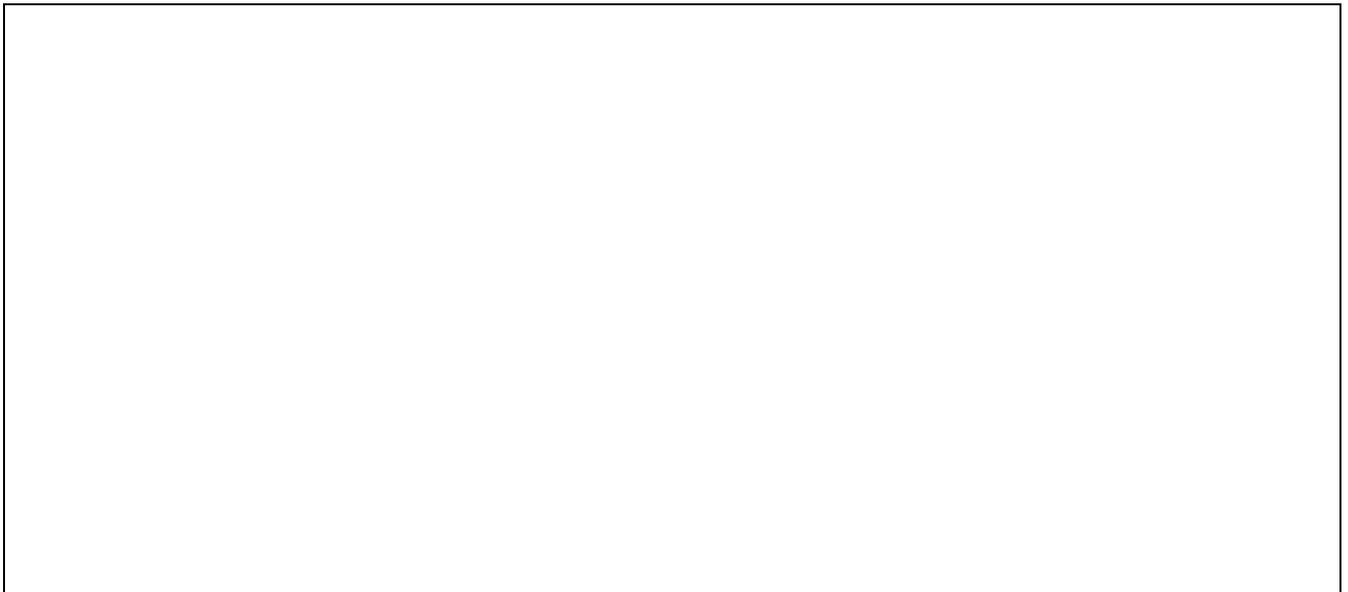
1. Examine the scene of the playground above. There are a lot of different shapes that make up the toys and play equipment. Draw, name, and describe clearly all the shapes you can see in the playground picture.

2. Lisa and Jim are drawing pictures to give to friends. Lisa made a drawing using different shapes and line of symmetry. She used the folded edge as the line of symmetry. Draw a picture of what the paper will look like when it is unfolded.

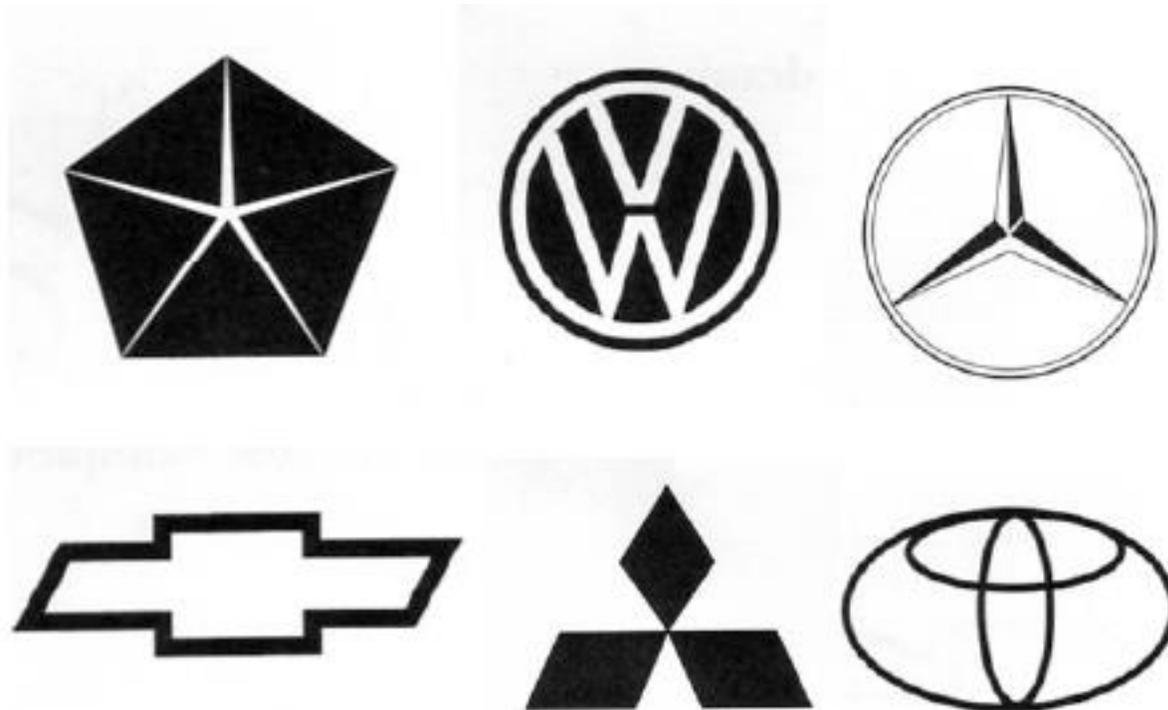


3. Jim made a drawing with 5 shapes in all. When it was finished, he noticed the following:
- his drawing had one line of symmetry
 - he drew 4 shapes that had 4 corners
 - he drew 1 shape that had 3 corners

Show what Jim's drawing could have looked like. Explain why you drew the drawing you did.



4. You work for a company in its marketing department. It is your job to create a new company logo. You have heard that having a logo with rotational symmetry is attractive and useful for potential customers. You look through a page of company logos. Which of the logos below have rotational symmetry? Explain your findings.



Explain why a logo with rotational symmetry is attractive and useful for potential customers.

Create a new logo with rotational symmetry for your company.

Illustrate all the line of symmetries of your logo. Justify why your logo has rotational symmetry.