

6th Grade
Unit 7: Geometry
Lesson 14 Problem Set

Name: _____

Date: _____

1. The students in Mr. Sordi's class are playing a guessing game by describing 3-D prisms and pyramids. Guess the name of the 3-D prism or pyramid each student describes.

a. Lexi: I am thinking of a shape that has one square face and 4 triangular faces. What is it?

b. Marco: I am thinking of a shape that sits on a face with 5 sides. There are 5 rectangular faces and another face with 5 sides. What is it?

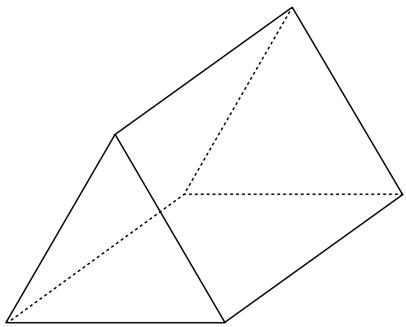
c. Adina: My shape has 4 triangular faces and that's it! What is it?

d. Rafiq: My shape is made up of only rectangular faces! What is it?

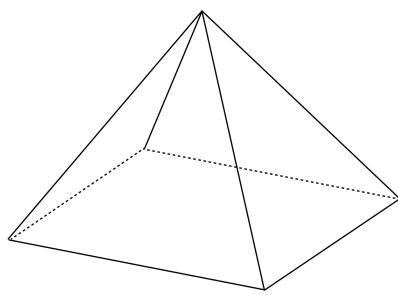
e. Olga: I'm thinking of a closed shape where the 6 triangular faces all meet together at a common vertex. What is it?

2. How could you describe each polyhedron below so that a friend could guess what you are looking at?

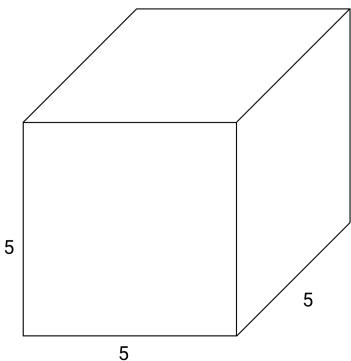
a.



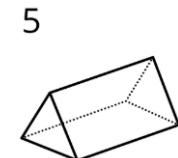
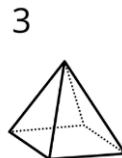
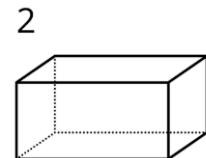
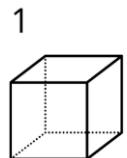
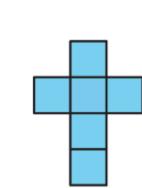
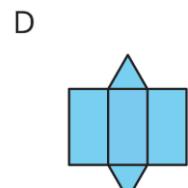
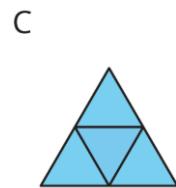
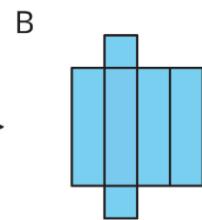
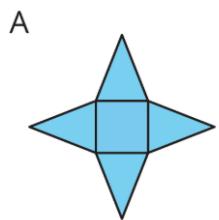
b.



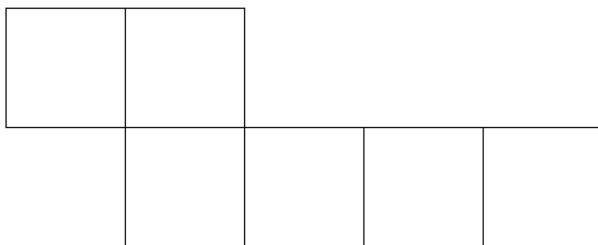
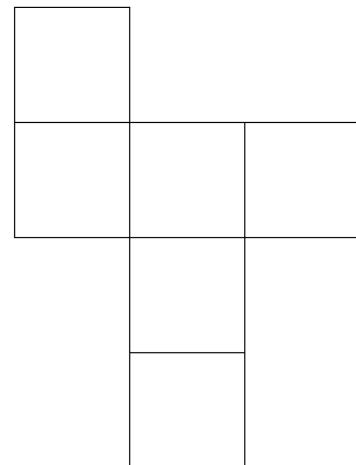
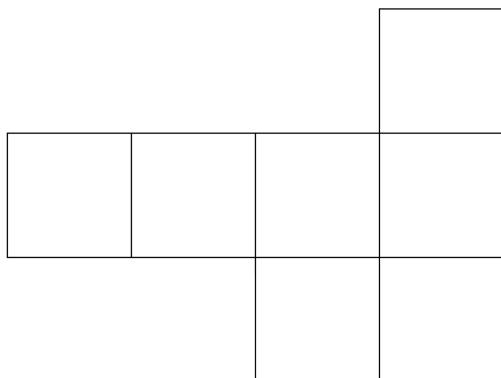
c.



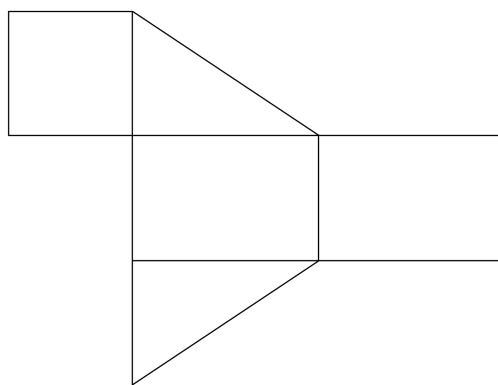
3. Each of the following nets can be assembled into a polyhedron. Match each net with its corresponding polyhedron, and name the polyhedron. Pick two net/polyhedron pairs and explain how you know the net and polyhedron go together.



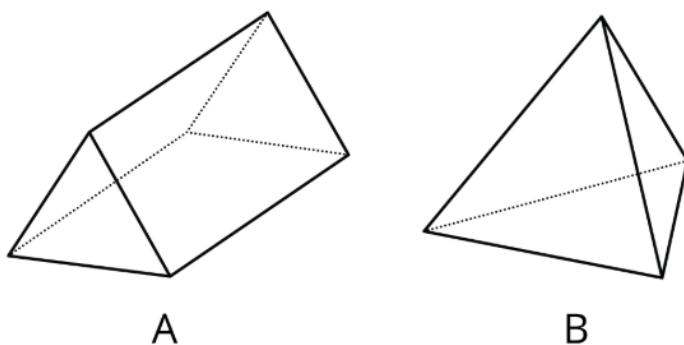
4. Two of the three nets below will fold into a cube. Determine which net will **not** fold into a cube and explain your reasoning. You can label the faces in the net to support your explanation if needed.



5. What shape will the net below fold into? Explain how you know.



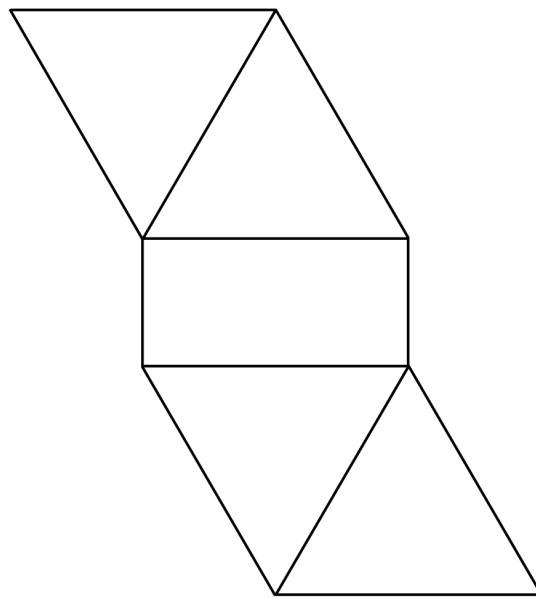
6. Here are two three-dimensional figures.



Tell whether each of the following statements describes Figure A, Figure B, both, or neither.

- a. This figure is a polyhedron.
- b. This figure has triangular faces.
- c. There are more vertices than edges in this figure.
- d. This figure has rectangular faces.
- e. This figure is a pyramid.
- f. There is exactly one face that can be the base for this figure.
- g. The base of this figure is a triangle.
- h. This figure has two identical and parallel faces that can be the base.

7. Yacob is trying to draw the net of a rectangular pyramid. He knows that it will have rectangle and 4 triangles, so he draws the net below.



Yacob made an error in his net. Help him fix his net so it will fold into a rectangular pyramid. You can either explain to Yacob how he can change his net, or draw what it should look like below.

Sources

3. Open Up Resources [Grade 6 Unit 4 Lesson 14](#) – Activity 14.1

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6. Open Up Resources [Grade 6 Unit 4 Lesson 14](#) – Practice Problem 4

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