Vocabulary Check

Match each word to its definition. Write your answers on the lines provided.

1. equilateral triangle   J
2. composite figure
3. parallelogram   H
4. volume   K
5. rectangular prism   A
6. regular polygon
7. triangular prism   G
8. obtuse triangle   C
9. face   B
10. polygon   D
11. square   E
12. pentagon   F

A. a three-dimensional figure with six rectangular faces, twelve edges, and eight vertices
B. a flat surface of a three-dimensional figure
C. a triangle with one obtuse angle
D. a closed figure made up of line segments that do not cross each other
E. a figure made up of two or more three-dimensional figures
F. a polygon with five sides
G. a prism with two congruent triangular bases
H. a polygon with congruent sides and all congruent angles
I. a quadrilateral with opposite sides both parallel and congruent
J. a triangle with three congruent sides
K. the amount of space within a three-dimensional figure
L. a rectangle with four congruent sides
Concept Check

Name each polygon. Determine if it appears to be regular or not regular.

13. pentagon - not regular
14. hexagon

Describe the attributes of each quadrilateral. Then classify the quadrilateral.

15. Opposite sides are congruent and parallel; parallelogram
16. Opposite sides are parallel and all sides are congruent. There are 4 right angles; square

Describe the faces, edges, and vertices of each three-dimensional figure. Then identify it.

17. The figure has 6 rectangular faces, 12 edges, and 8 vertices; rectangular prism
18. The figure has 5 faces, 9 edges, and 6 vertices; triangular prism
19. A triangle forms the front of the Pantheon in Rome, Italy. Classify the triangle based on its sides. Then classify it based on its angles.

- **Isosceles triangle, obtuse triangle**

20. Shawn keeps his photos in a box like the one shown.

![Box Diagram]

What is the volume of the box?

- **288 in³**

21. Ishmail wants to build a long train track. If each piece of track is 6 inches long, and he has 42 pieces, can he make a track that is 20 feet long?

- **Yes**

Can he make a track that is 22 feet long?

- **No**

**Test Practice**

22. Find the volume of the composite figure.

- **A** 2,700 in³
- **B** 2,780 in³
- **C** 3,420 in³
- **D** 3,660 in³
Use what you learned about geometry to complete the graphic organizer.

**ESSENTIAL QUESTION**
How does geometry help me solve problems in everyday life?

**Faces, Edges, and Vertices**
The planter has 6 rectangular faces, 12 edges, and 8 vertices; rectangular prism

**Vocabulary**
- three dimensional figure, face, edge, vertices, rectangular prism, volume

**Real-World Example**
Charlene is filling a box planter with soil. The base of the box planter is 9-inch square, and the sides are 18 inches tall. How much space will Charlene fill with soil? 1458 in³

Now reflect on the ESSENTIAL QUESTION?
Write your answer below.

Answers will vary