Assignment

LESSON 3: Breaking the Fourth Wall

Write

Match each definition to its corresponding term.

- 1. The amount of space occupied by an object
- 2. A regular polyhedron whose six faces are congruent squares
- 3. The total area of the two-dimensional surfaces that make up a three-dimensional object
- 4. The distance across a circle through its center
- 5. A geometric solid that is made up of polygons
- 6. The intersection of two faces of a polyhedron
- 7. A closed figure formed by three or more line segments
- 8. A two-dimensional representation of a threedimensional geometric figure
- 9. A cube that is one unit in length, one unit in width, and one unit in height
- 10. A bounded three-dimensional geometric figure
- 11. A portion of a line that includes two points and all the points in between those two points
- 12. The polygons that make up a polyhedron
- 13. A location in space
- 14. The point where the edges of a polyhedron meet

- a. polygon
- b. polyhedron
- c. cube
- d. unit cube
- e. surface area
- f. volume
- g. point
- h. line segment
- i. geometric solid
- j. faces of a polyhedron
- k. edge of a polyhedron
- I. vertex of a polyhedron
- m. net
- n. diameter

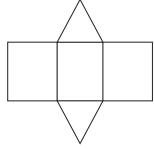
Remember

The surface area of a polyhedron is the sum of all the areas of the faces of the polyhedron.

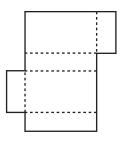
Practice

1. Name the solid figure formed by each net.

a.

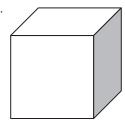


b.

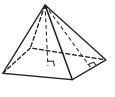




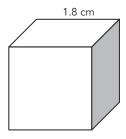
2. Draw a net that will form each solid figure.



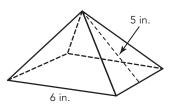
b.



3. Calculate the surface area of the cube.



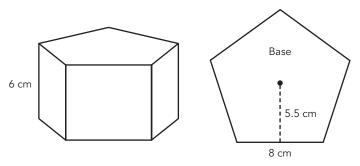
4. The pyramid shown has a square base and congruent triangular faces. Calculate the surface area of the pyramid.



5. Estimate and calculate the surface area of a rectangular prism with a length of 9.06 ft, a width of 4.11 ft, and a height of 6.2 ft.

Stretch

A pentagonal prism has pentagons as bases. Each base can be divided into five congruent triangles. Determine the surface area of this pentagonal prism.



Review

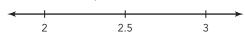
1. Kendra is a huge fan of Broadway musicals. She wants to record some of her favorite shows. The table shows the musicals she has chosen and how much space they each take up in megabytes.

Musical	Disc Space (megabytes)
Annie	109.785
Beauty and the Beast	131.642
Into the Woods	79.4
Les Miserables	192.27
Shrek the Musical	117.005

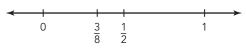
- a. Calculate the total amount of memory the musicals will take up. Show your work.
- b. How much out of 700 megabytes will Kendra have left after she records her musicals? First estimate, then calculate the answer. Show your work.

2. Determine a rational number between the rational numbers in each pair.

a. Adult male polar bears measure 2.5 to 3 meters tall.



b.The weights of newborn polar bear cubs range from $\frac{3}{8}$ to $\frac{1}{2}$ kilogram.



3. Determine each sum.

- a. 1.009 + 6.965
- b. 3.25 + 0.003