

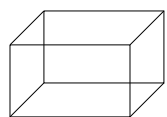
Homework Help for Math Out of the Box

Developing Geometric Logic: Rows and Columns

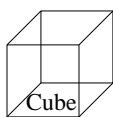
Information about homework assignments is provided to help parents and other homework helpers with the mathematics ideas that are being developed. The homework help includes definitions of key vocabulary, questions to ask that will help students connect to the classroom investigations, problem solving examples, and other helpful explanations.

Homework 2A1 follows Lesson 3

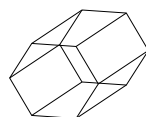
Prisms are three-dimensional shapes with two ends or bases which are congruent, parallel polygons and with other faces that are rectangles or, more generally, parallelograms. Prisms are named by their bases. A cube is a special rectangular prism because all of its faces are congruent (same shape and size). Examples of prisms include:



Rectangular
Prisms



Hexagonal
Prism

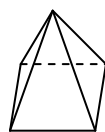


Triangular
Prism

A pyramid is a three-dimensional shape with one face, the base, which has three or more edges, and with other faces, which are triangles, that share a common vertex. A pyramid is named by the shape of its base. Examples of pyramids include:

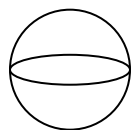


Triangular
Pyramid



Rectangular
Pyramid

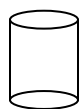
Other three-dimensional shapes studied in these lessons include the following:



Sphere



Cone



Cylinder

Homework 2B1 and 2B2 follow Lesson 8 and 9

A polygon is a closed, two-dimensional shape, which is bounded by line segments.

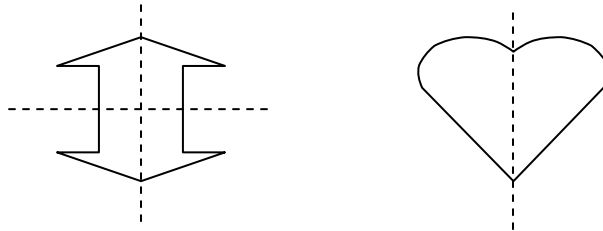
The classification system for naming polygons by the number of sides used in these lessons is:

Three-sided–Triangles
Four-sided–Quadrilaterals
Five-sided–Pentagons
Six-sided–Hexagons
Seven-sided–Heptagon
Eight-sided–Octagon
Nine-sided–Nonagon
Ten-sided–Decagon

Homework 2B3 follows Lesson 11

A shape has line symmetry if a line divides the shape into at least two congruent parts.

Following are examples of shapes that have line symmetry:



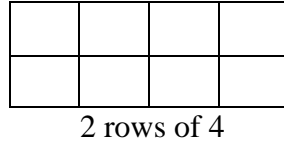
Homework 2C1 follows Lesson 14

A transformation can be defined as the movement of a figure according to a rule. The transformations explored in these lessons are: **Flip (or Reflection)** which reflects a figure over a line to create a mirror image of the original figure, **Slide (or Translation)** which slides each point of a figure the same distance in the same direction, and **Turn (or Rotation)** which rotates a figure about a point.

Homework 2C2 follows Lesson 15

This homework assignment connects concepts explored in Geometry to concepts explored in other areas of mathematics such as Algebra or Numbers and Operations.

An **array** is a way to show a multiplication fact using rows and columns.
Example: $2 \times 4 = 8$ This means 2 rows with 4 elements in each row.



Homework 2D1 follows Lesson 18

This homework assignment allows students to explore paths on coordinate grids. In this assignment, the student can only move horizontally or vertically to get to each position. These experiences build on the foundation laid by explorations in transformations, which were conducted in previous lessons.

