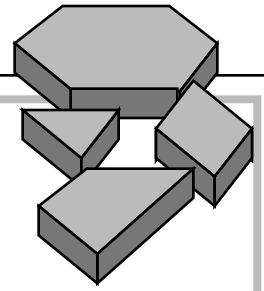


Pattern Blocks



Objective: Estimate, measure, record, compare and order objects by length, height, perimeter and circumference, using standard units.

Materials: Pattern blocks, paper, pencil, cm ruler.

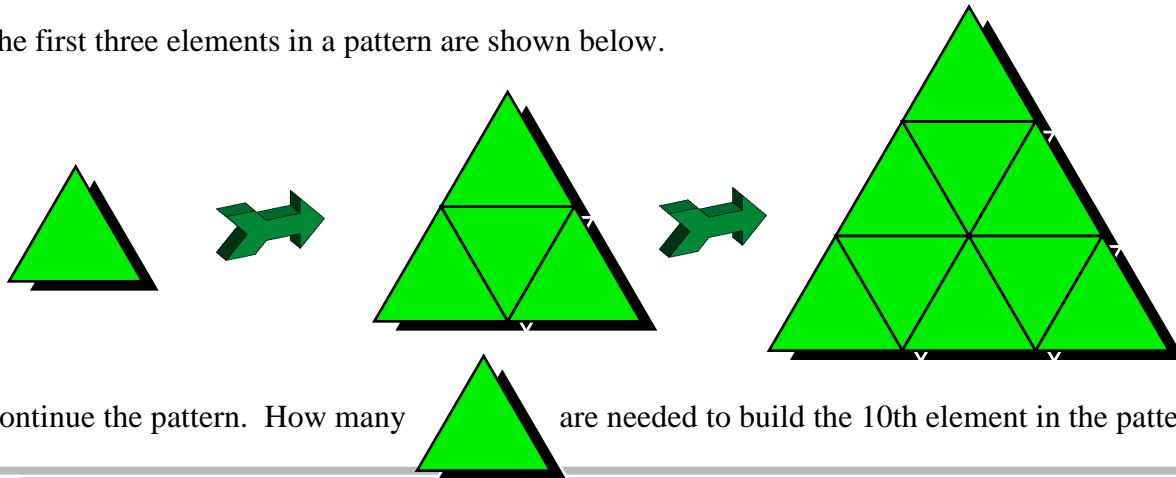
4

- Take a collection of any 10 pattern blocks.
- Arrange those pattern blocks to create a shape or figure leaving no gaps or spaces (trade some pattern blocks for others if necessary).
- Estimate the perimeter of your object. Now, trace around the blocks to create a shape. Use your cm ruler to measure the perimeter of the shape.
- Can you arrange those same blocks differently to create a shape with a different perimeter?


Objective: Construct and expand patterns in two and three dimensions, concretely and pictorially.

Materials: Pattern blocks, paper, pencil.

- The first three elements in a pattern are shown below.



5

- Continue the pattern. How many  are needed to build the 10th element in the pattern?

Objective: Demonstrate and explain the meaning of improper fractions and mixed numbers (positive) concretely, pictorially and symbolically.

Materials: Pattern blocks.

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- How many blue blocks are required to completely cover a yellow pattern block?
- If a yellow block is one whole, what fraction does a blue block represent?
- Take four blue blocks (what improper fraction does this represent?) Arrange those blue blocks on top of yellow blocks. Notice that three blue blocks make one whole, and there is one blue block alone on the second yellow block. We have built a model to show $1 \frac{1}{3}$.
- Construct a model to find the mixed fraction for each of the following:

$$\frac{3}{2} \quad \frac{5}{3} \quad \frac{11}{6} \quad \frac{7}{3}$$

- Write the improper fraction for each of the following:

$$2 \text{ and } \frac{2}{3} \quad 1 \text{ and } \frac{1}{2} \quad 3 \text{ and } \frac{5}{6}$$

