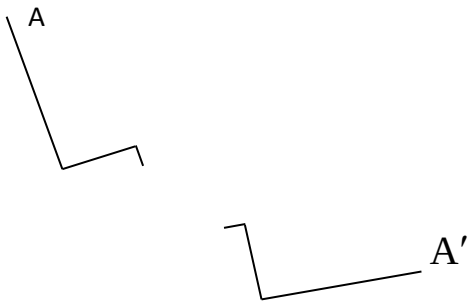
22.3

Find and name the single rigid motion that would take A to A′. Briefly describe your process.

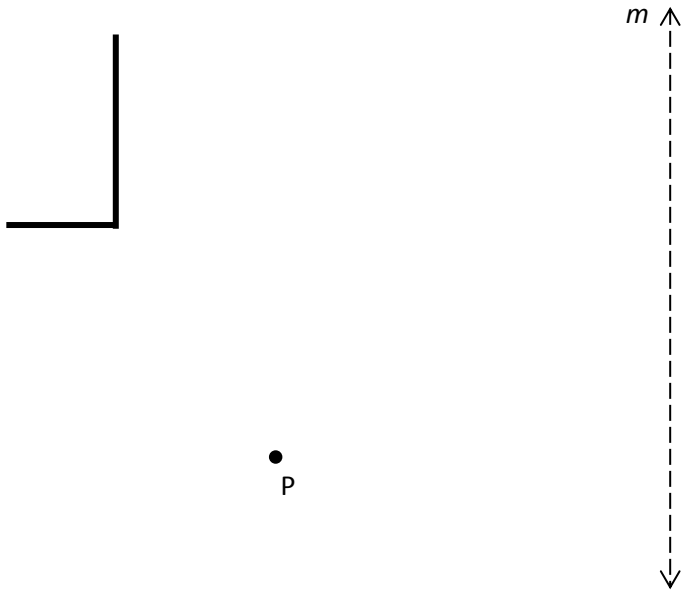


22.4

Find the composition of the two rigid motions:

(reflection in line *m*) o (clockwise rotation of 70º with center P).

Mark your final image *F*.

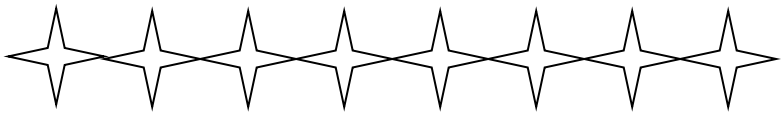


Which single rigid motion would take the original figure to *F*?

_____

22.5

Identify and describe all the symmetries possible for the diagram shown. Assume that the pattern continues to the right and left indefinitely. Two answers are completed already.



Rotation: **no** **yes** 180º with center of rotation at the center of any star or at the point where stars touch

Translation: **no** **yes** horizontally to the left or right the width of a star or any number of stars

Reflection: **no** **yes**

Glide-reflection: **no** **yes**

Suppose the scale factor relating two similar polyhedra is 6. Determine the volume of the larger polyhedron if the smaller polyhedron has a volume of 15 cm^3.

A. 3375 cm^3

B. 3240 cm^3

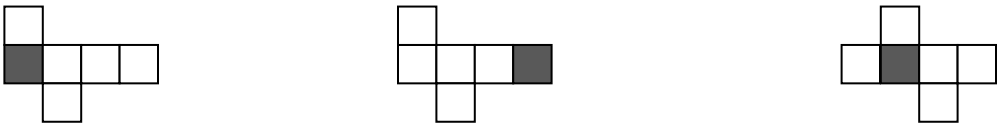
C. 540 cm^3

D. 1350 cm^3

E. 90 cm^3

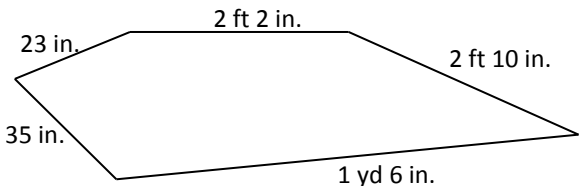
22.6

Suppose that the lower half of a cube is painted. Finish shading each net so that it could fold up to make a half-painted cube. The bottom face of the cube is already shaded in each net.



23.1

Sections of garden edging come in sections 27 inches long and cannot be bent. How many sections would be needed to surround a flower garden shaped like the drawing below. Assume that pieces less than 6 in. long are too short to be useful. Show and label all steps of your work. Present your work in an orderly fashion.



Select the most appropriate unit from A-C for measuring each characteristic listed below.

A. cubic centimeters B. centimeters C. square centimeters

_____ A sector of a circle _____ How far a child can throw a ball

_____ How much of an apple you ate _____ The surface area of a cube

_____ The length of the pencil you are using

23.2

Use the information given about the angles of triangles I, II, and III to determine which, if any, of the triangles are similar.

I) 70° and $45^\circ\,50'$ II) $64^\circ\,10'$ and $45^\circ\,50'$ III) 70° and $64^\circ\,50'$

A. I and II only

B. II and III only

C. I and III only

D. I, II and III

E. No similarity exists

24.1

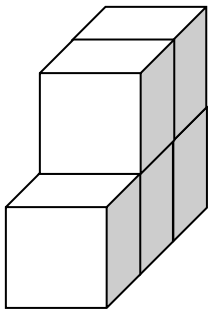
A polygon has a perimeter of 18 centimeters with each side having a length that is a whole number of centimeters. For the given polygon, list all possible combinations of lengths.

Rectangle

Triangle with one side having length 6 cm

24.1/2

Determine the volume and surface area of the shape shown if the cubes are 1 ft on each edge.



Volume: _____

Surface area: _____

What is the volume in **cubic yards**? _____ yd^3

24.2

Complete the following conversions. Do not use decimals in your work or answers.

a. $2\frac{1}{2}$ pt = _____ qt

b. $1\frac{1}{3}$ gal = _____ qt

c. 5 tsp = _____ Tbsp

d. 3 c = _____ gal

25.1

What is the area of a rectangle with perimeter 20 meters and base 6 meters?

What is the area and perimeter of the figure shown? Include π in your answer, as needed

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