1. (9.1, 9.2, 9.3) Use pencil and paper to answer the question.

Use the grid at the right to complete the following.

a. Plot and label the following points: *A*: (1,1) *B*: (2,3) *C*: (4,3) *D*: (3,1)

b. Draw line segments to connect the points as follows:

A to B, B to C, C to D, and D to A.

c. Describe the figure you have drawn.



d. Plot points on the grid to make a reflection of the figure. Begin with the reflection of point *A* at (1,-1).

Record the points you used below.

Point	Original figure	Reflected Figure
A	(1,1)	()
В	(2,3)	()
С	(4,3)	()
D	(3,1)	()

e. Describe a rule for changing the points from the original figure to get the reflected figure.

2. (9.4, 9.5) Use pencil and paper to answer the question.

Luke wants to make a cloth cover for the answer section on his science quiz poster. The answer section is 20 centimeters by 10 centimeters.



a. In order to make the cover, does Luke need to find the area or perimeter of the answer section?

b. What amount of cloth does he need?

(unit)

3. (9.5, 9.6) Use pencil and paper to answer the question.

a. Find the area of the figure. Use the formulas to help you.

Area of rectangle = length of base * height: A = b * hArea of parallelogram = length of base * height: A = b * hArea of triangle = $\frac{1}{2}$ * length of base * height: A = $\frac{1}{2}$ * b * h



The area is ______. (unit)

b. Label the base and height on the figure.

4. (9.5, 9.6) Use pencil and paper to answer the question.

a. Find the area of the figure. Use the formulas to help you.

Area of rectangle = length of base * height: A = b * hArea of parallelogram = length of base * height: A = b * hArea of triangle = $\frac{1}{2}$ * length of base * height: A = $\frac{1}{2}$ * b * h



The area is ______. (unit)

b. Label the base and height on the figure.

5. (9.5, 9.6) Use pencil and paper to answer the question.

a. Find the area of the figure. Use the formulas to help you.

Area of rectangle = length of base * height: A = b * hArea of parallelogram = length of base * height: A = b * hArea of triangle = $\frac{1}{2}$ * length of base * height: A = $\frac{1}{2}$ * b * h



The area is (unit)

b. Label the base and height on the figure.

6. (9.4, 9.5, 9.6) Use pencil and paper to answer the question.

a. Draw a shape with an area of 6 cm^2 . Use the formulas below to help you.

b. Label the base and height of your shape.

Area of rectangle = length of base * height: A = b * hArea of parallelogram = length of base * height: A = b * hArea of triangle = $\frac{1}{2}$ * length of base * height: A = $\frac{1}{2}$ * b * h



7. (9.4, 9.5) Use pencil and paper to answer the question.

Explain what the area of a figure is.

Name:

Unit 09 PC Form E

8. (9.1, 9.2, 9.3) Use pencil and paper to answer the question.

a. What ordered number pair names Point *B* in the coordinate grid?



b. Plot and label a Point *C* in the grid so that triangle *ABC* has an area of 8 cm².

What ordered number pair names Point C?

9. (9.8, 9.9, 9.10) Use pencil and paper to answer the question.

The prism shown is made up of centimeter cubes.



a. What is the area of the base of the prism?	
b . What is the height of the prism?	(unit)
• What is the vision of the prices	(unit)
c. what is the volume of the prism?	(unit)
d. If you kept the area of the base the same and changed the height so that the volume is tripled, what would the new volume be?	
e. What would the new height be?	(unit)
	(unit)

10. (9.8, 9.9) Use pencil and paper to answer the question.

Find the volume of the rectangular prism.



11. (9.8, 9.9) Use pencil and paper to answer the question.

Find the volume of the prism.



12. (9.8, 9.9) Use pencil and paper to answer the question.

Find the volume of the prism.



13. (9.8, 9.9) Use pencil and paper to answer the question.

The rectangular prism below has a volume of 270 cm^3 .



14. (9.8, 9.9, 9.10) Use pencil and paper to answer the question.

Explain how you can find the volume of any prism.

15. (9.4, 9.5, 9.6) Use pencil and paper to answer the question. **Tabletop Tiles**

Carlos is covering two tabletops with tiles. The tiles are 3 inches by 5 inches.

For each tabletop: Decide whether Carlos will be able to cover the entire surface with whole tiles (no gaps and no overlaps).

Record your work with labeled pictures, and explain in words why the tabletop can or cannot be covered with the tiles.

a. Tabletop A: 15 inches by 20 inches

b. Tabletop B: 12 inches by 14 inches

c. Based on your work, what rule could be used to determine whether or not a tabletop can be covered with 3-inch-by-5-inch tiles without having to draw a plan?