

# Geometry

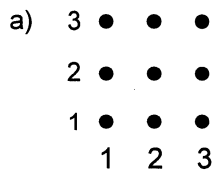
## Unit Test

Name: \_\_\_\_\_

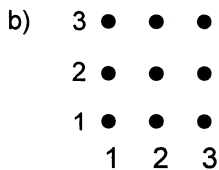
Date: \_\_\_\_\_

### Section A

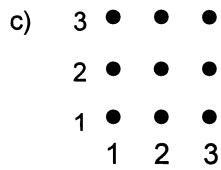
1. Circle the points in the following positions (connecting the dots first, if necessary):



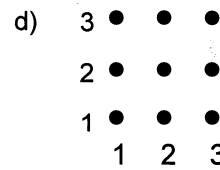
Column 1  
Row 2



Column 2  
Row 3

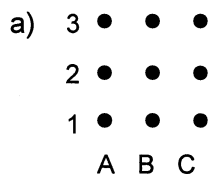


(1,1)

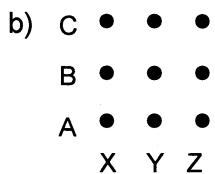


(3,3)

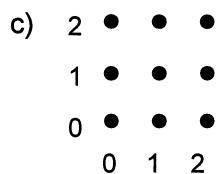
2. Circle the points in the following positions:



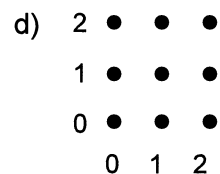
(B,2)



(X,C)

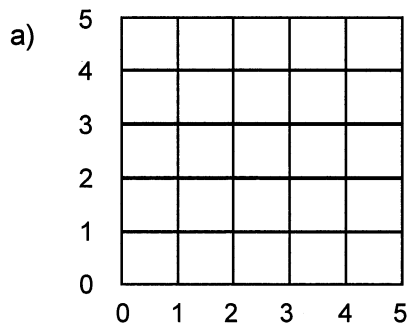


(0,2)



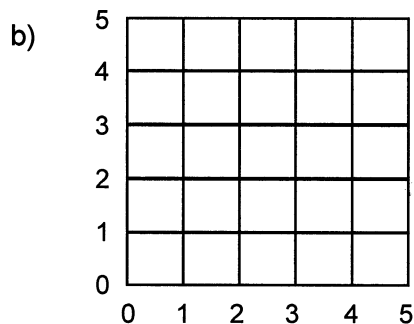
(2,0)

3. Graph each set of ordered pairs and join the dots to form a polygon. Identify the polygon drawn:



A (0,2) B (0,4) C (4,4) D (4,2)

This polygon is a \_\_\_\_\_.



A (1,1) B (1,3) C (3,3) D (3,1)

This polygon is a \_\_\_\_\_.

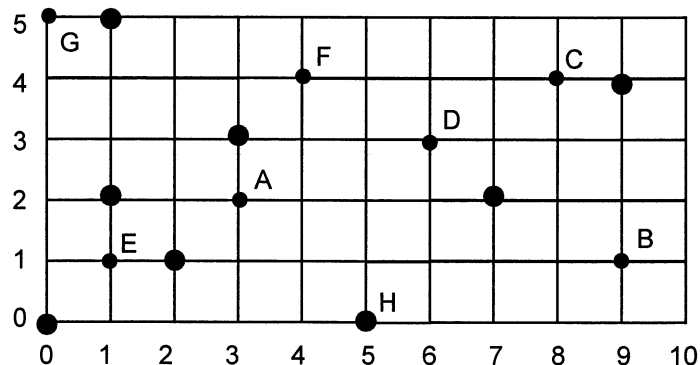
4. Write the coordinates of the following points:

A ( , ) B ( , )

C ( , ) D ( , )

E ( , ) F ( , )

G ( , ) H ( , )



# Geometry

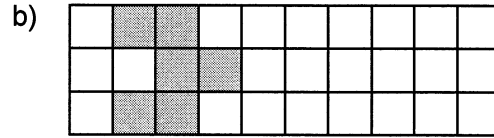
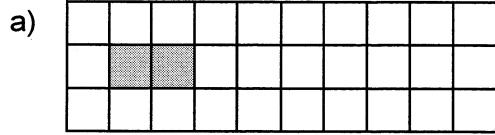
## Unit Test

Name: \_\_\_\_\_

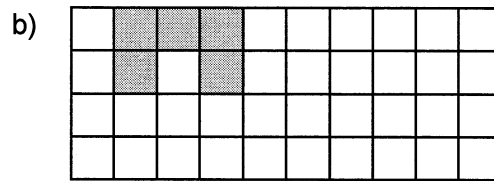
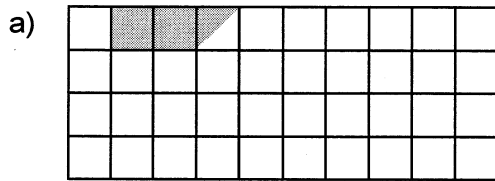
Date: \_\_\_\_\_

### Section B

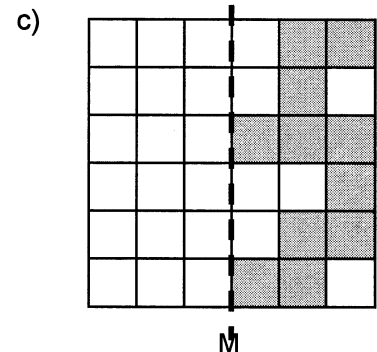
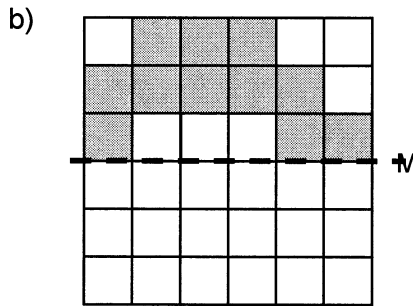
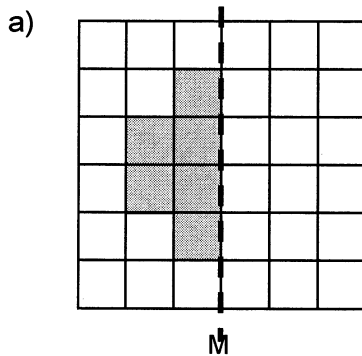
5. Slide each shape 4 boxes to the right. (Start by putting a dot on one of the corners of the figure. Slide the dot four boxes right, then draw the new figure.)



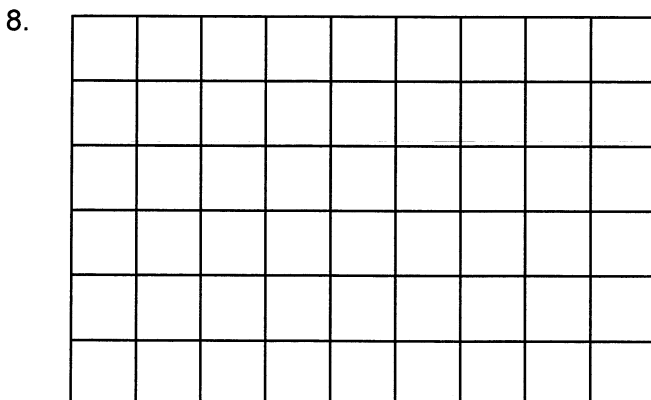
6. Slide each figure 5 boxes to the right and 2 boxes down:



7. Draw the reflection (or flip) of the shapes below:



d) Are the shapes on both sides of M congruent? Explain your answer.



Draw a shape on the grid paper. Translate the shape and draw a translation arrow between a point on the shape and a point on the image. Describe how far the shape moved (right / left and up / down).

# Geometry

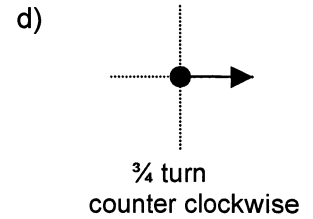
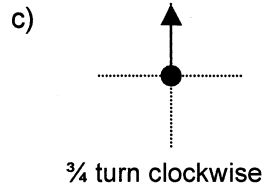
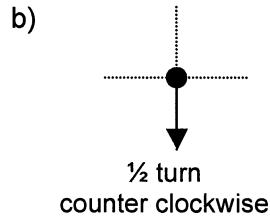
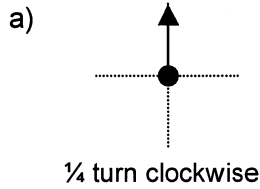
## Unit Test

Name: \_\_\_\_\_

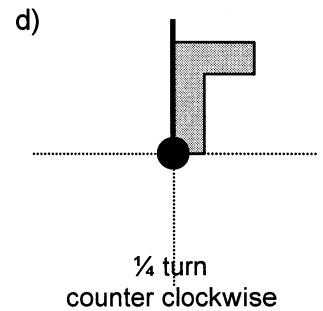
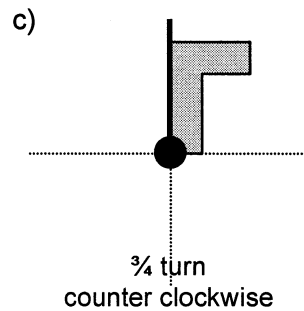
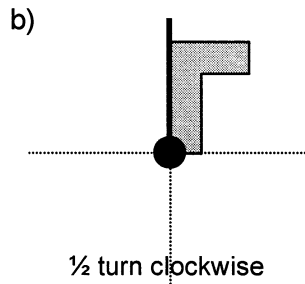
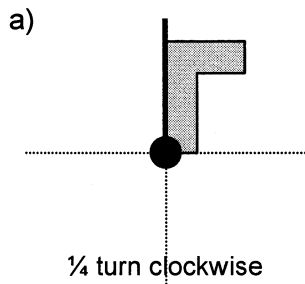
Date: \_\_\_\_\_

### Section B (continued)

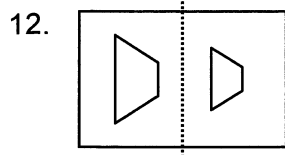
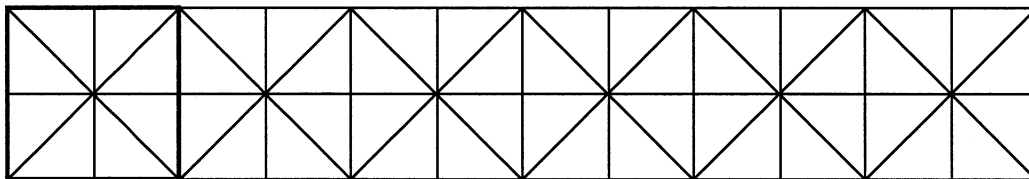
9. Show where the arrow would be after each turn:



10. Show what the figure would look like after the rotation. First rotate the dark line, then draw the rest of the figure:



11. Colour or shade in the sections of the left-hand square using at least 3 colours or shadings. Then create a border design by rotating the square:



Give two reasons why this picture does not show a reflection:

# Geometry

## Unit Test

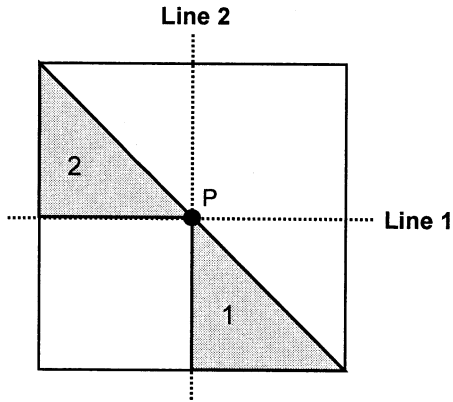
Name: \_\_\_\_\_

Date: \_\_\_\_\_

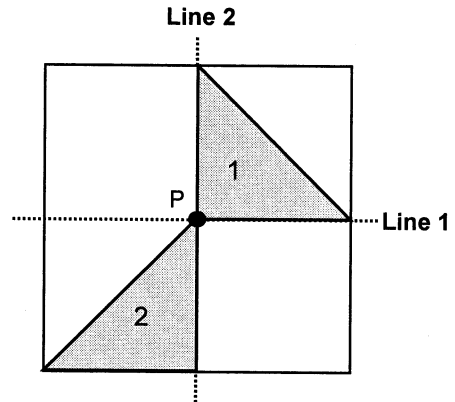
### Section B (continued)

13. Describe how the figure moved from Position 1 to Position 2 by using two transformations:

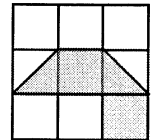
a)



b)



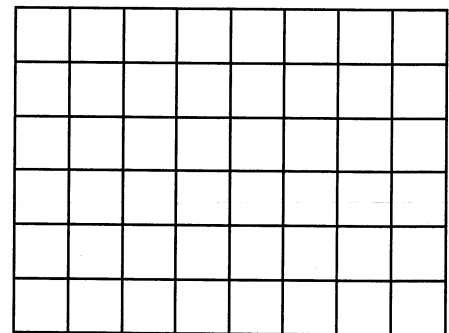
14. For each question below, you will need to copy the given figure onto the grids below:



Pick any point on the figure as a centre of rotation and turn the figure  $\frac{1}{4}$  or  $\frac{1}{2}$  turn around the point. Then reflect the figure through any side.

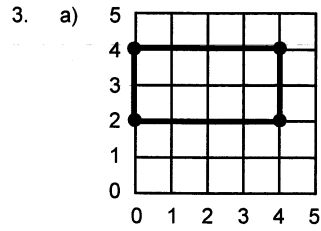
Draw the initial and final positions of the figure on the grid.

Describe the transformations you used.

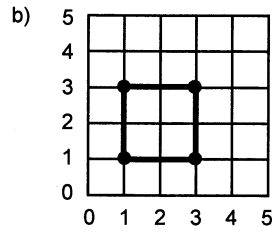


## Section A

1. a) 3 ● ● ●  
 2 ● ● ●  
 1 ● ● ●  
 1 2 3
- b) 3 ● ● ●  
 2 ● ● ●  
 1 ● ● ●  
 1 2 3
- c) 3 ● ● ●  
 2 ● ● ●  
 1 ● ● ●  
 1 2 3
- d) 3 ● ● ●  
 2 ● ● ●  
 1 ● ● ●  
 1 2 3
2. a) 3 ● ● ●  
 2 ● ● ●  
 1 ● ● ●  
 A B C
- b) C ● ● ●  
 B ● ● ●  
 A ● ● ●  
 X Y Z
- c) 2 ● ● ●  
 1 ● ● ●  
 0 ● ● ●  
 0 1 2
- d) 2 ● ● ●  
 1 ● ● ●  
 0 ● ● ●  
 0 1 2



The polygon is a rectangle.

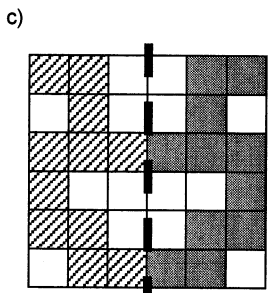
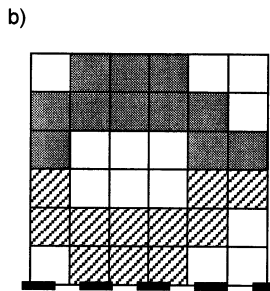
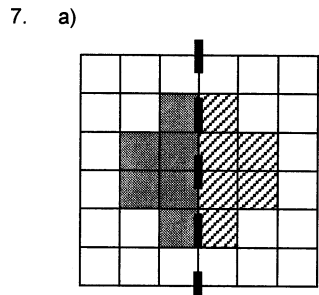
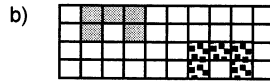
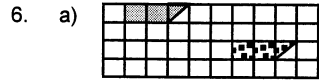
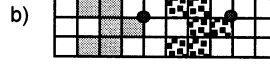
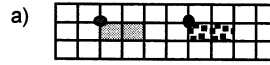


The polygon is a square.

4. A (3, 2)    B (9, 1)  
 C (8, 4)    D (6, 3)  
 E (1, 1)    F (4, 4)  
 G (0, 5)    H (5, 0)

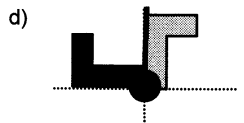
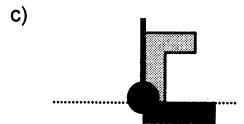
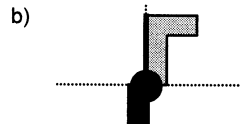
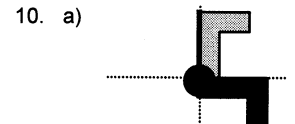
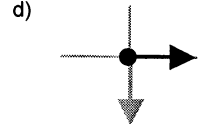
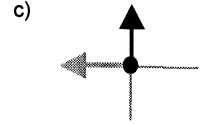
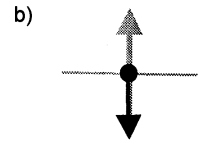
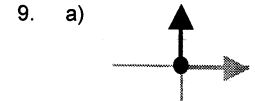
## Section B

5. NOTE:  
 Location of dots may vary.



d) Yes. Explanations will vary.

8. Answers will vary. Teacher to check.



11. Answers may vary. Teacher to check.

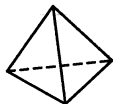
12. The two shapes are not the same size and both shapes are facing the same direction (which is NOT a reflection).

Exact answers may vary. Teacher to check.

13. a) Answers may vary.  
Teacher to check.  
*Sample answer:*  
Transformation #1:  
Rotation  $90^\circ$  counter – clockwise  
Transformation #2:  
Reflection in Line 2
- b) Answers may vary.  
Teacher to check.  
*Sample answer:*  
Transformation #1:  
Slide down one unit  
Transformation #2:  
Reflection in Line 2
14. Answer will vary.  
Teacher to check.

### Section C

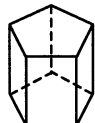
15.



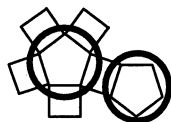
Triangular Pyramid  
edges – 6  
vertices – 4  
faces – 4



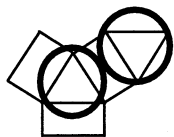
NOTE:  
Since all of the faces are congruent, students could circle any for the base.



Pentagonal Prism  
edges – 15  
vertices – 10  
faces – 7



Triangular Prism  
edges – 9  
vertices – 6  
faces – 5



16. E, B, A, D, C

17. a) Name:  
i) Triangular Pyramid  
ii) Triangular Prism
- Similarities:
- both have a triangular base
- Differences:
- i) has 1 base,  
ii) has 2 bases
  - i) has 4 faces,  
ii) has 5
  - i) has 6 edges,  
ii) has 9
  - i) has 4 vertices,  
ii) has 6
  - faces that are not bases are:
    - i) triangles
    - ii) rectangles
- b) Name:  
i) Rectangular Pyramid  
ii) Triangular Pyramid
- Similarities:
- pyramids
  - have 1 base
  - have a point opposite to base
  - faces that are not bases are triangles.
- Differences:
- i) has rectangular base,  
ii) has triangular bases
  - i) has 5 faces,  
ii) has 4
  - i) has 8 edges,  
ii) has 6
  - i) has 5 vertices,  
ii) has 4
  - any face of ii) can be considered a base, not so for i).

18. Answers may vary.  
Teacher to check.  
Samples:

