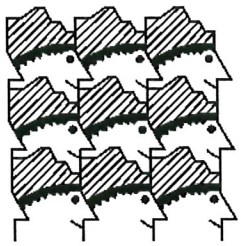
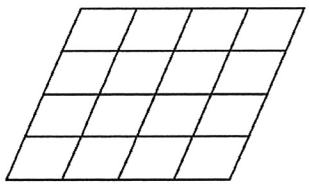
Name Answers Date

9.7 – Tessellations

Does the picture show a tessellation of a repeating figure? If so, identify the repeating figure and the transformation used.

1) 

Yes.
Head.
Translational
Tessellation

2) 

Yes.
Parallelogram.
Translational
Tessellation

3) A pure tessellation is made up of congruent copies of one figure. Can the hexagon at the right be used to make a pure tessellation? If so, draw a sketch. If not, explain.

No. There is no way to fit several of the shapes together to fill a plane with no gaps or overlaps

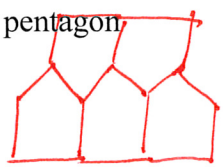
Determine whether each figure will tessellate a plane. Explain.

4) a regular 14-gon

No. The measure of one angle is 154.3°, which does not divide evenly into 360°

5) a non-regular pentagon

Yes.



6) an obtuse triangle

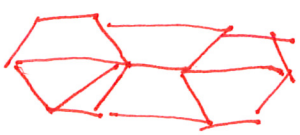
Yes. Every triangle tessellates.

7) an acute triangle

Yes. Every triangle tessellates

8) a trapezoid

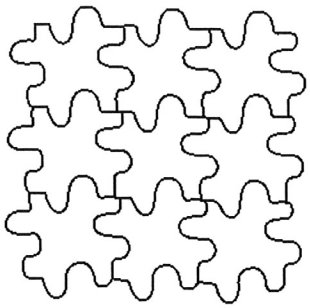
Yes.



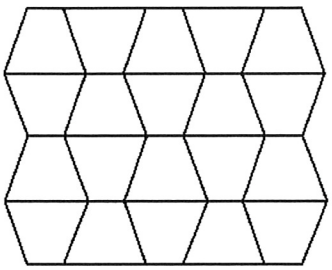
9) a regular 20-gon

No. The measure of one angle is 162°. This is not a factor of 360°

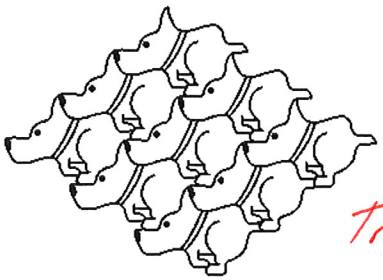
Determine what kind of transformation helps create each tessellation.

10) 

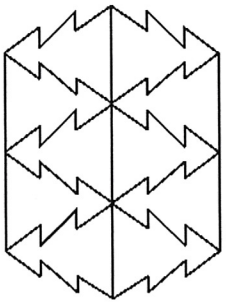
Translation

11) 

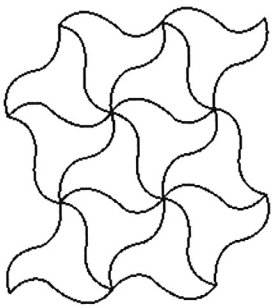
Glide Reflection

12) 

Translation

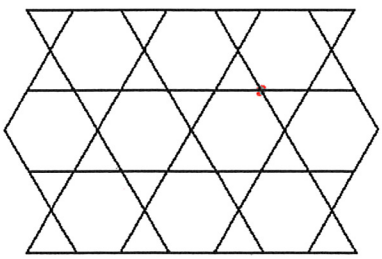
13) 

Glide Reflection

14) 

Rotation

What kind of tessellation is the following? How can it be named?

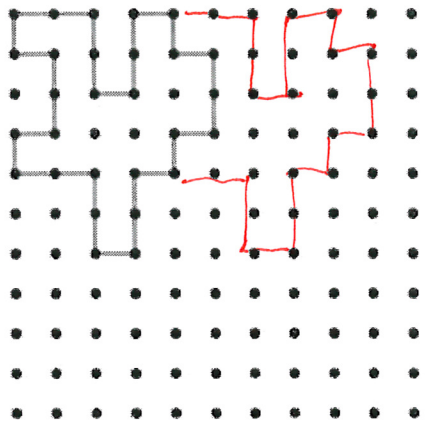
15) 

Semi-Regular

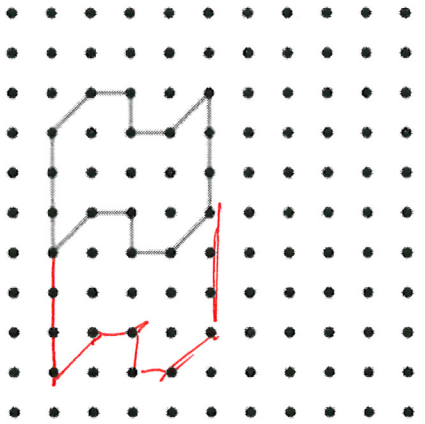
3.6.3.6

16) Choose ONE of the following problems and tessellate the figure on the given dot paper.

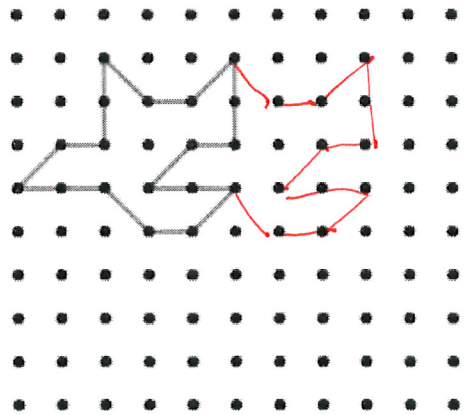
a)



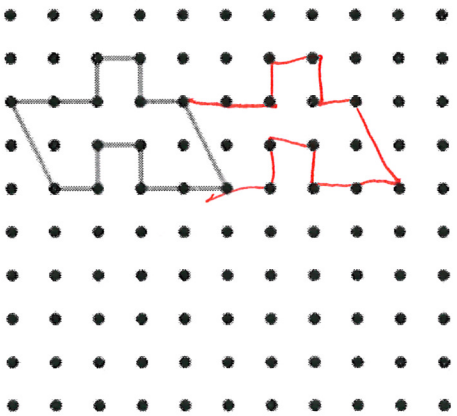
b)



c)

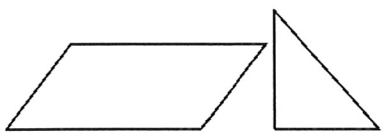


d)



Can each set of polygons be used to make a tessellation? If so, draw a sketch. Remember, on NOTABILITY, you can cut and paste.

17)



No.

18)