

Examples



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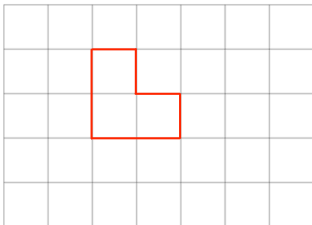


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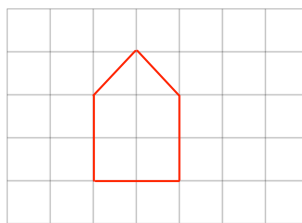
Workout

Question 1: Show how each of the following shapes tessellate.
For each you should draw at least 8 shapes.

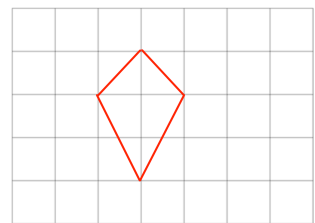
(a)



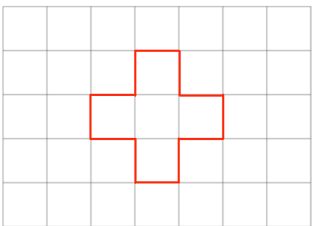
(b)



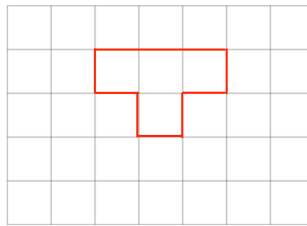
(c)



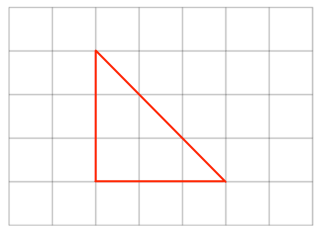
(d)



(e)



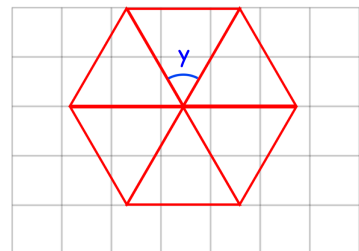
(f)



Apply

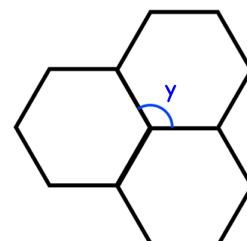
Question 1: The diagram shows how equilateral triangles tessellate.

- Find the size of the angle y .
- Explain why equilateral triangles tessellate.

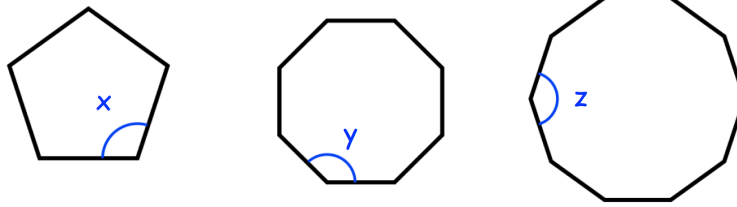


Question 2: The diagram shows how regular hexagons tessellate.

- Find the size of the angle y .
- Explain why regular hexagons tessellate.



Question 3: Shown below is a regular pentagon, regular octagon and a regular decagon.



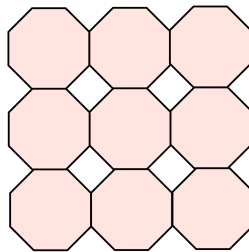
- (a) Find x
- (b) Find y
- (c) Find z
- (d) Explain why regular pentagons do not tessellate.
- (e) Explain why regular octagons do not tessellate.
- (f) Explain why regular decagons do not tessellate.

Question 4: There are three regular tessellations that are possible using only one type of regular polygon (equilateral triangles, squares and hexagons)

There are several more semi-regular tessellations which are made from two or more types of regular polygon.

The pattern below shows a semi-regular tessellation using squares and regular octagons.

What other semi-regular tessellations can you find?



Answers



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