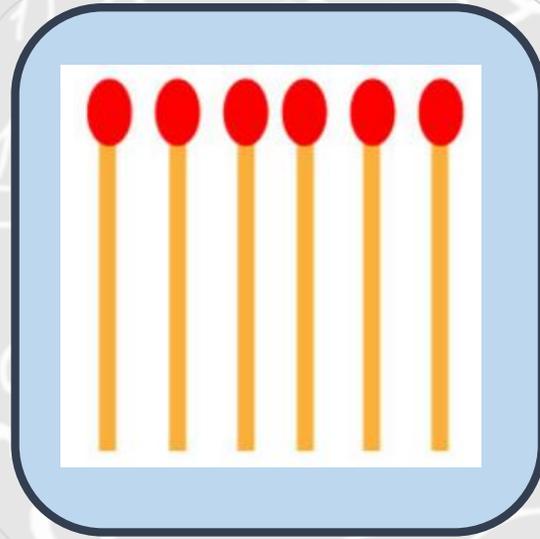
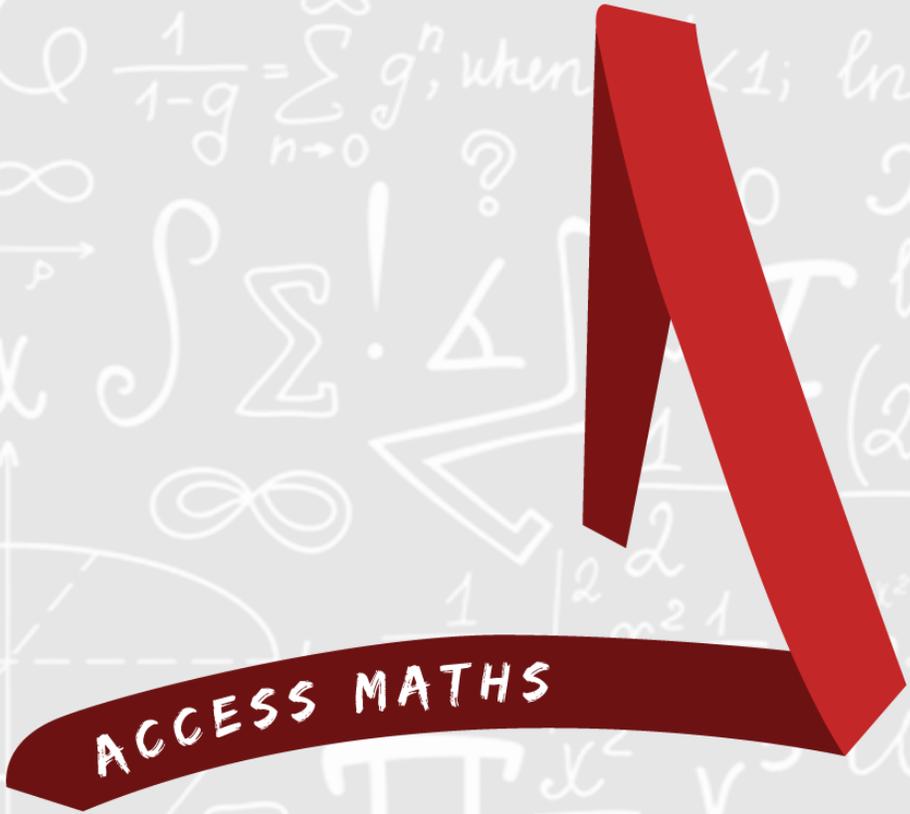
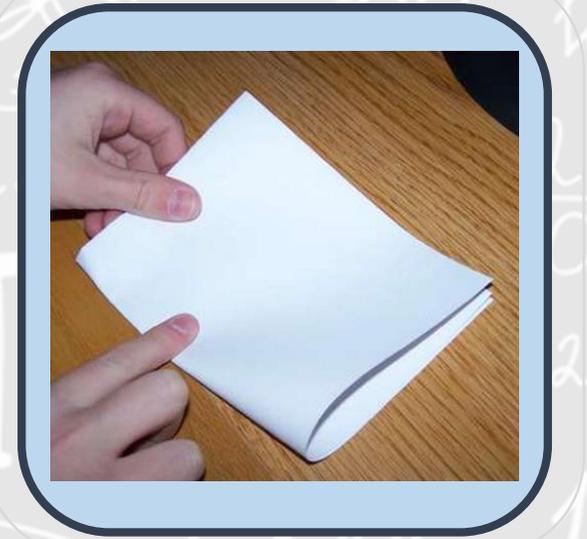


NUMNERACY CHALLENGE



LEVEL 1

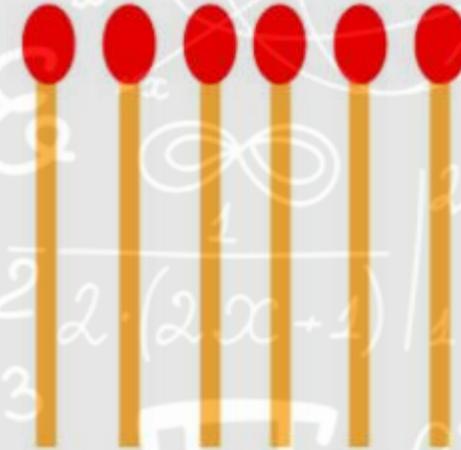
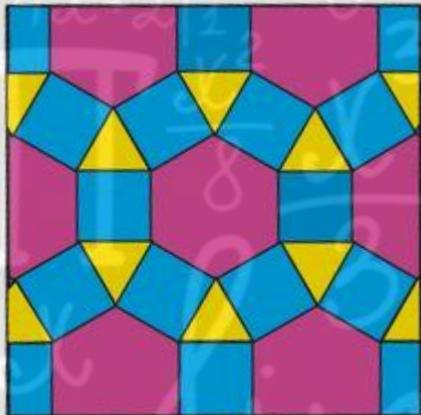


LEVEL 2

NUMERACY CHALLENGE

A regular tessellation is a pattern made by repeating a regular polygon or series of regular polygons. (Shapes where all sides are the same length)

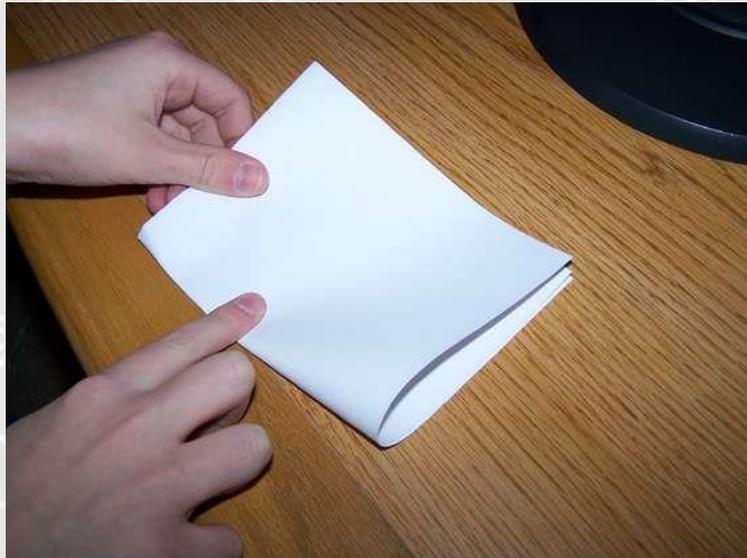
An equilateral triangle is the first regular polygon.



Can you arrange 6 match sticks to make:

- 1 equilateral triangle
- 6 equilateral triangles
- 4 equilateral triangles

NUMERACY CHALLENGE



The myth: You can't fold a paper in half more than eight times. The reality: Given a paper large enough—and enough energy—you can fold it as many times as you want.



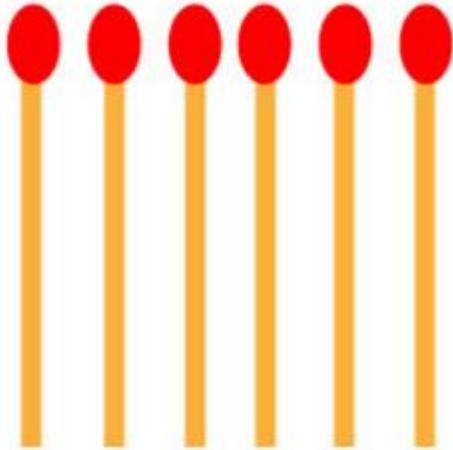
A piece of paper is 0.01cm high

From the earth to the moon is 384,000km

How many times would I need to fold a piece of paper till it was high enough to reach the moon? (make your best guess)
Can you think about the maths?

LEVEL 2

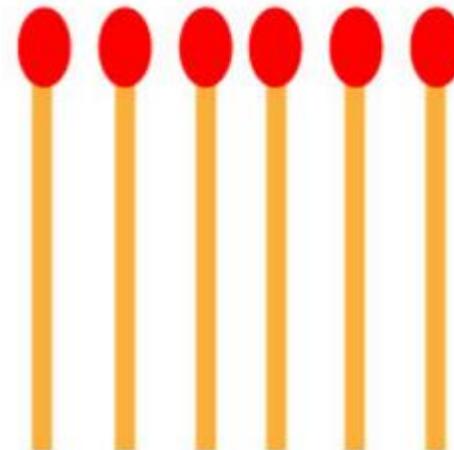
NUMERACY CHALLENGE LEVEL 1



Can you arrange 6 match sticks to make:

- 1 equilateral triangle
- 6 equilateral triangles
- 4 equilateral triangles

NUMERACY CHALLENGE LEVEL 1



Can you arrange 6 match sticks to make:

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- 6 equilateral triangles
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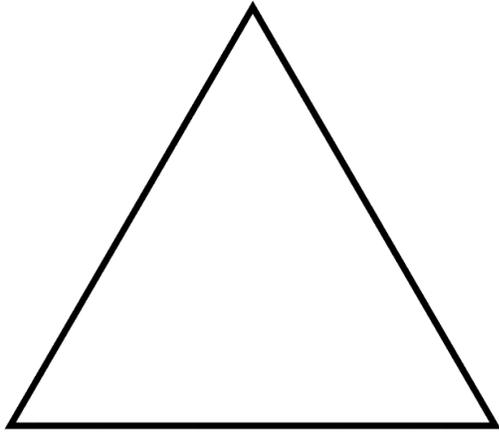
NUMERACY CHALLENGE LEVEL 2

Try to fold this piece of paper
more than 8 times...

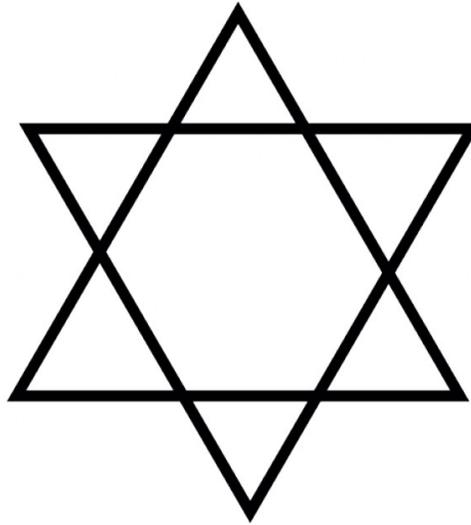
NUMERACY CHALLENGE LEVEL 2

Try to fold this piece of paper
more than 8 times...

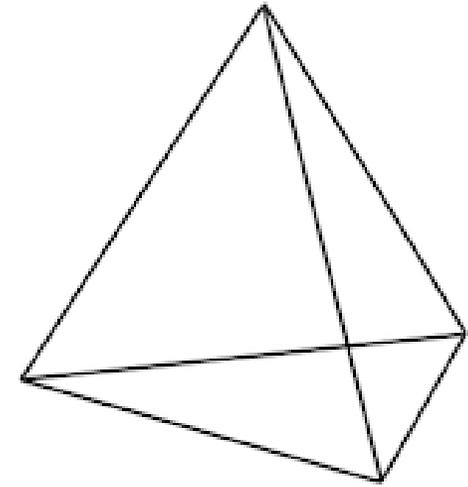
Level 1:



Equilateral Triangle



Star of David



Tetrahedron

Level 2: When I start with an unfolded page (zero foldings), it's one page thick. When I fold a page once, it will be 2 pages thick. But — and this is key — when I fold it twice on itself, it's not three, but 4 pages thick.

By time I get to 20 foldings, my folded paper is more than 10 kilometers high, which surpasses Mt. Everest. 41 foldings will get me slightly more than halfway to the Moon, so that means that 42 foldings is all it takes!

If you fold it 103 times, the thickness of your paper will be larger than the observable Universe: 93 billion light-years. Seriously.