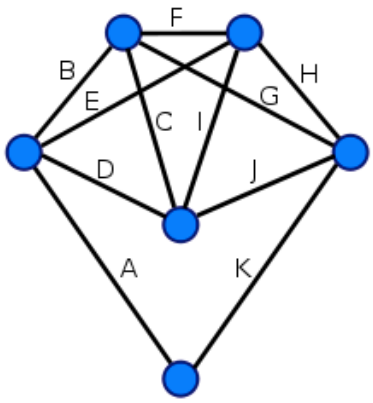
Mathletes Problem of the Week 10

Take a Walk with Euler



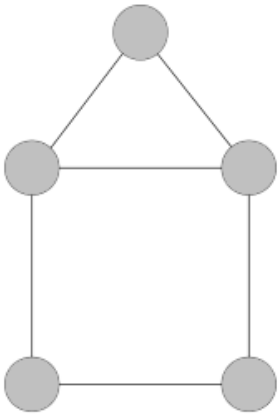
A unicursal figure like the one above is one you can draw in a single line without lifting your pencil off the paper or tracing the same line segment twice. The path you trace through a unicursal figure is called an Euler trail, named after Leonhard Euler, a Swiss mathematician from the 1700s. Follow the alphabetical labels in the figure above to find the Euler trail through it.

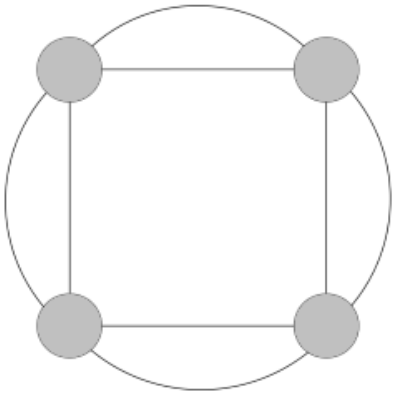
a) Which of the figures on the next page are unicursal? Label the Euler trail if you find one.
b) Take a look at which figures were unicursal and which weren't and try to describe which kinds of figures have Euler trails and which kinds don't.

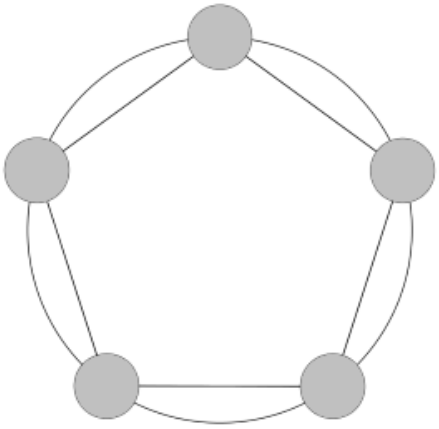
Solutions & Explanations: (Draw & label your solutions on the figures on the attached page and record what you notice below.)

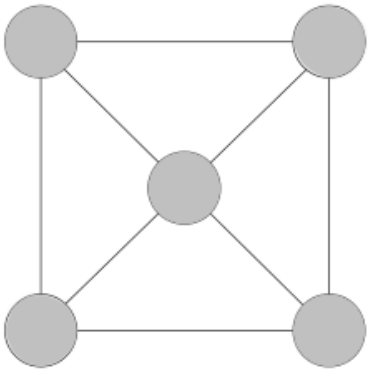
Name _____ **Class** _____

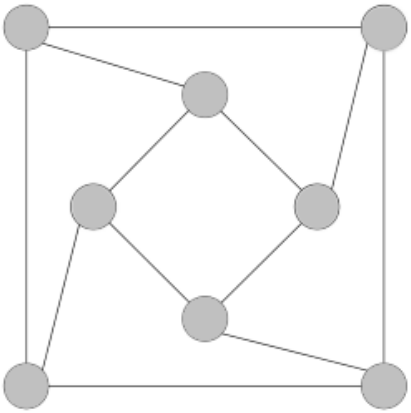
(First and last name, please!) **Solutions due: February 8th**

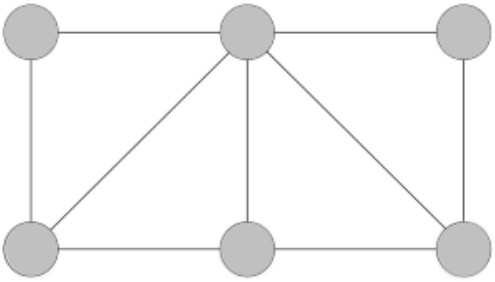
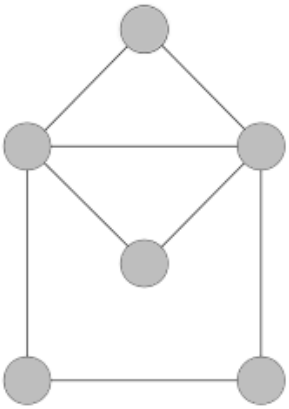
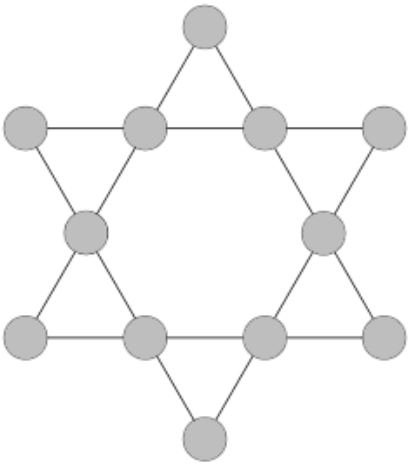
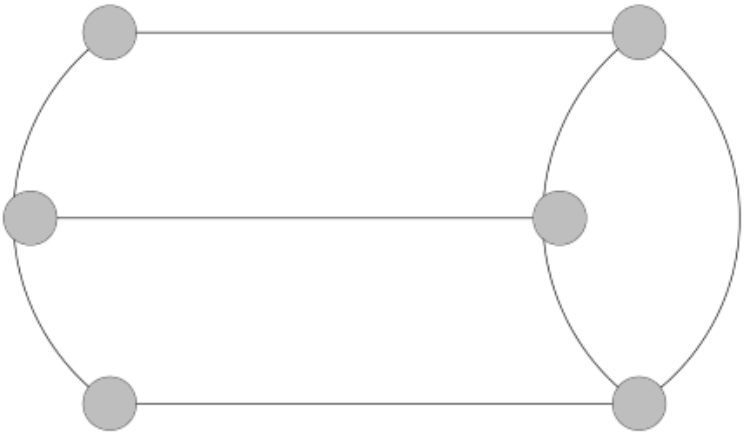
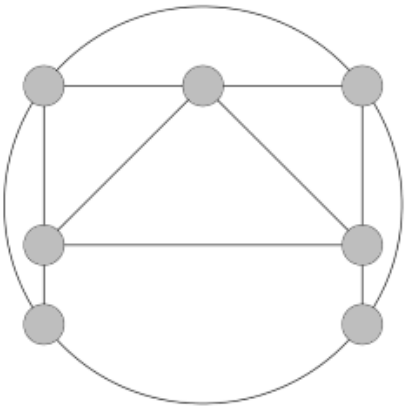








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