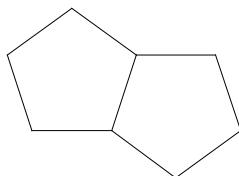


POLYPENTS

A polypent is a shape formed by one or more pentagons joined by sides. Any join must be fully along an edge. The only 'duopent' (shape formed by two pentagons) is shown below.



The only duopent.

1. How many different 'tripents' (3 pentagons) are there? Use a Geo-Pro to sketch them.

A 'tetrapent' has four pentagons. A tetrapent that can be cut out and used to cover another is not considered different to the one it could cover (i.e. mirror images or rotated versions are not considered different).

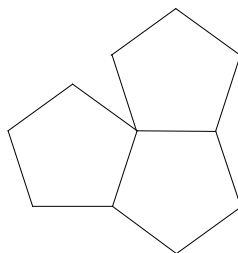
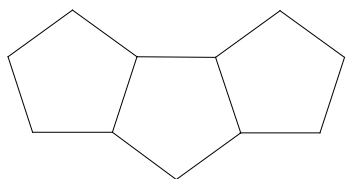
2. Can you find the 7 different tetrapents? Draw as many as you can.
3. Possible names for the 7 tetrapents are:
Worm, Shoe, Bird, Tower, Twin Bow Ties, Gun and Arch.
Try to match each of your tetrapents with one of these names.

Extension.

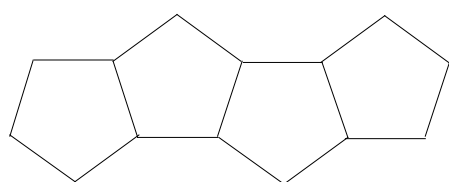
Draw six different pentapents (5 pentagons).

Answers POLYPENTS

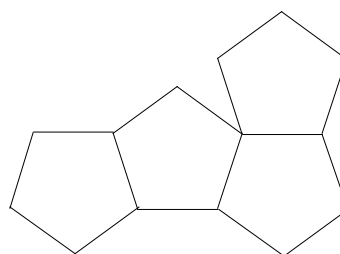
1. There are only two distinct tripents.



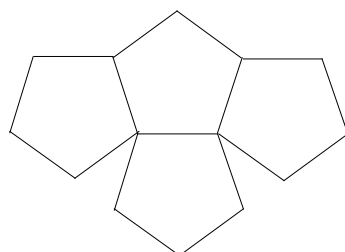
2. The seven tetrapents.



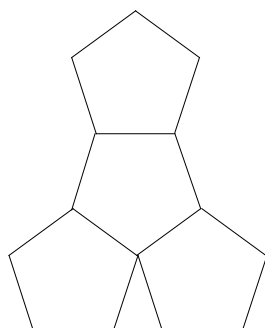
Worm



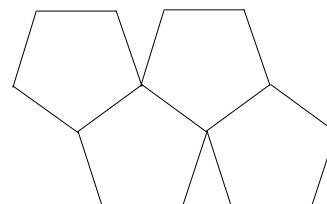
Shoe



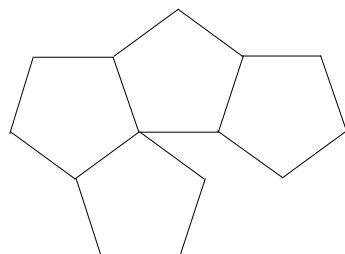
Bird



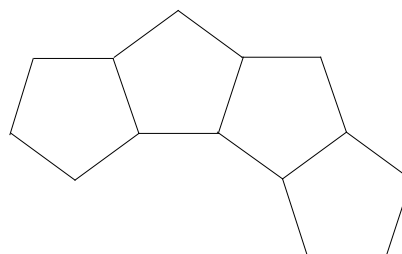
Tower



Twin Bow Ties



Gun



Arch