



# PUZZLERS

Teachers can photocopy this page to use in class



## ▶ FOUNDATION PRESENTS

Provide an assortment of wrapped presents for the children to explore, making sure that some are small but heavy and others are light but large. Encourage the children to make predictions about the weight of each of the presents.

*Adapted from <http://nrich.maths.org/154>*



## ▶ YEARS 1 AND 2 BUILDING A PEN

A zookeeper was promised that she could have some special animals called mathemalsas soon as she builds a pen for them. She has 20 feet of fence to use for the pen. What type of pen can she build? How many different types of pens can she build?

*[www.nctm.org/resources/archive.aspx?id=3604&journalid=4](http://www.nctm.org/resources/archive.aspx?id=3604&journalid=4)*



## ▶ YEARS 3 AND 4 YOU ARE THE SQUARE!

Use paper pattern block shapes to represent your family members. You are the square. If you are a girl, add one blue rhombus to the square. If you are a boy, add one tan rhombus to the square. Represent each adult with a yellow hexagon. Represent each of your siblings with a trapezium and each pet with a triangle. Use all of the shapes to create a polygon, making sure that your blocks are connected along matching sides. Glue the polygon to a sheet of paper. Use the back of your paper to write additional family details. Share your creation with a classmate.

*[www.nctm.org/resources/archive.aspx?id=3604&journalid=4](http://www.nctm.org/resources/archive.aspx?id=3604&journalid=4)*



## ▶ YEARS 5 AND 6 ADDING DIGITS

If you add the digits in a number, how many numbers between 0 and 1000 will have a sum of 15?

*[www.nctm.org/resources/archive.aspx?id=3604&journalid=3](http://www.nctm.org/resources/archive.aspx?id=3604&journalid=3)*