



Problem of the Week

Problem B and Solution

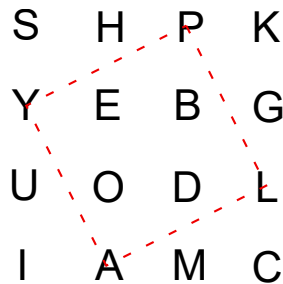
Word Up!

Problem

In the diagram below, we can connect the letters of the word PLAY by drawing a straight line between each pair of consecutive letters in the word, and then another straight line from the last letter back to the first.

When we connect the letters of the word PLAY, we can see that the shape formed is a rectangle.

- a) Which of the words shown below will also create a rectangle when we connect their letters in the diagram?



SICK	PLAY
SULK	MODE
HACK	DAUB

- b) Name the shapes formed when we connect the letters of these words:
BEAM, BOYS, DAM.

CHALLENGE: What other words can you find which make polygons when you connect their letters in the diagram?

Solution

- (a) SICK, SULK, HACK and PLAY form rectangles.

Note that SICK and PLAY form squares, but as a square is a type of rectangle, we include these.

Note also that though a square is a rectangle, a rectangle is not always a square.

- (b) The shapes formed are: BEAM: rectangle
 BOYS: quadrilateral
 DAM: isosceles right-angled triangle

CHALLENGE: Various words and polygons are possible, including:

YOU: isosceles right-angled triangle	POD: right-angled triangle
MOB: isosceles right-angled triangle	MASH: parallelogram
BAM: right-angled triangle	POSH: isosceles triangle
CASH: quadrilateral	GOAL: parallelogram