

## Reasoning and Problem Solving – Properties of Shape – Year 4

Farmer Doug has ordered 3 mirrors for the a crazy mirror challenge but he can't remember the name of the shapes he ordered.



6. Using the clues work out the shapes of the mirrors he has ordered?

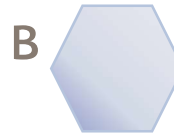
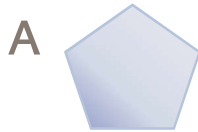
The first had 4 equal sides, 2 acute and 2 obtuse angles.

I know one had 2 sets of parallel sides. One set equal but shorter than the other set. 2 acute 2 obtuse angles.



The third had 4 right angles and 2 pairs of equal parallel sides, one pair longer than the other.

He wants to order two more mirrors, he draws you a clue.

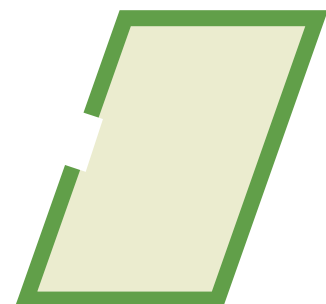
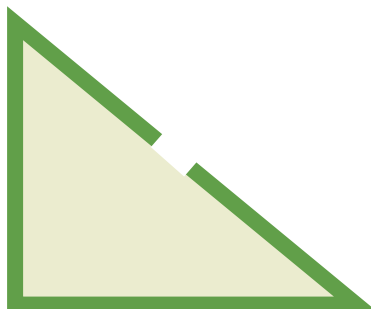
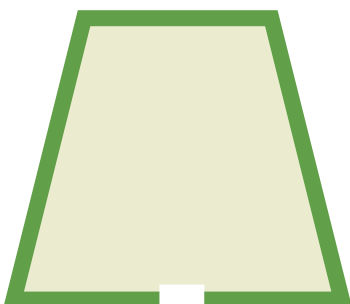


7. Describe the mirrors for the order form below:

	Mirror shape name	Number of parallel Sides	Number of internal angles	Type of angles: acute or obtuse
A				
B				

You have so many ideas for the challenges you need to change the maze plan to fit them all in!

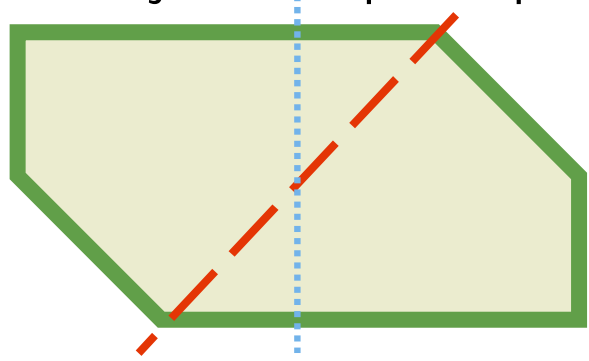

8. If extra hedges were planted in the shapes below, how could they be split to create two symmetrical areas for each space?




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9. Tiger and Shannon cannot agree how to split this space so it is symmetrical.

The dotted blue line makes two symmetrical spaces.



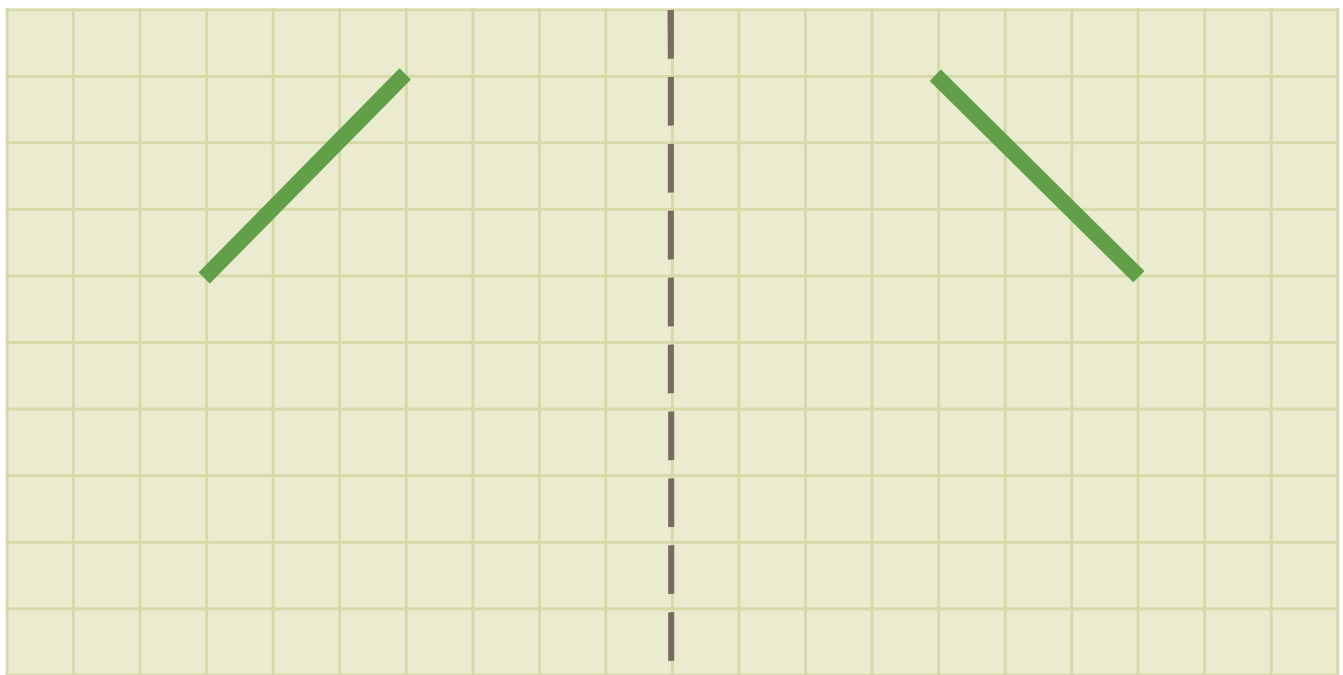
The red dashed line makes two symmetrical spaces.



Can you help them agree? Explain your answer.

The maze is such a success you decide to extend using some existing hedges.

10. Design your own symmetrical space using the hedges already given. Your space can be any shape so long as it is symmetrical... let your imagination run wild!



Well done! Your tourist attraction has been awarded a 'must visit' rosette from the local summer activities magazine. Here are some of the customer comments...



A great day out!

So much fun!

All the family loved it! We'll come again.

Great puzzles, fun to complete!

Looks like you'll be busy all summer long!

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