

## Angle properties part 1

Whether you are a parent, teacher or home school educator, we've compiled examples of activities, games and puzzles which can be used to support the learning of shape and space.

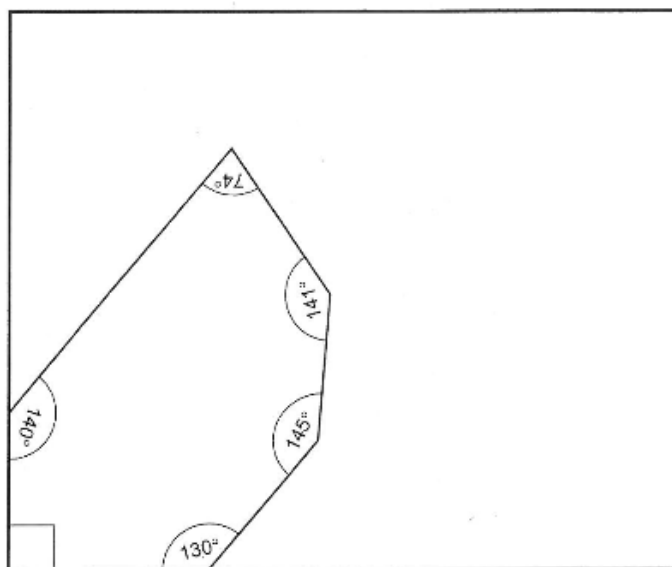
These examples are taken from the 'angle properties' packs found in our SMILE resource collection. The mathematical demand increases as you work through the packs. There are lots more ideas in the complete packs, which can be downloaded at <https://www.stem.org.uk/rxzf3>

You may want to have the Geometry Facts to hand: <https://www.stem.org.uk/rxzf4>

Answers to cards can be found at <https://www.stem.org.uk/rxxo5>

Smile Worksheet 2358

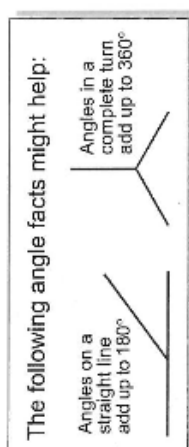
1. By looking at the size of the angles, fit them in this rectangle.



2. Calculate angles **a**, **b**, **c** and **d**.

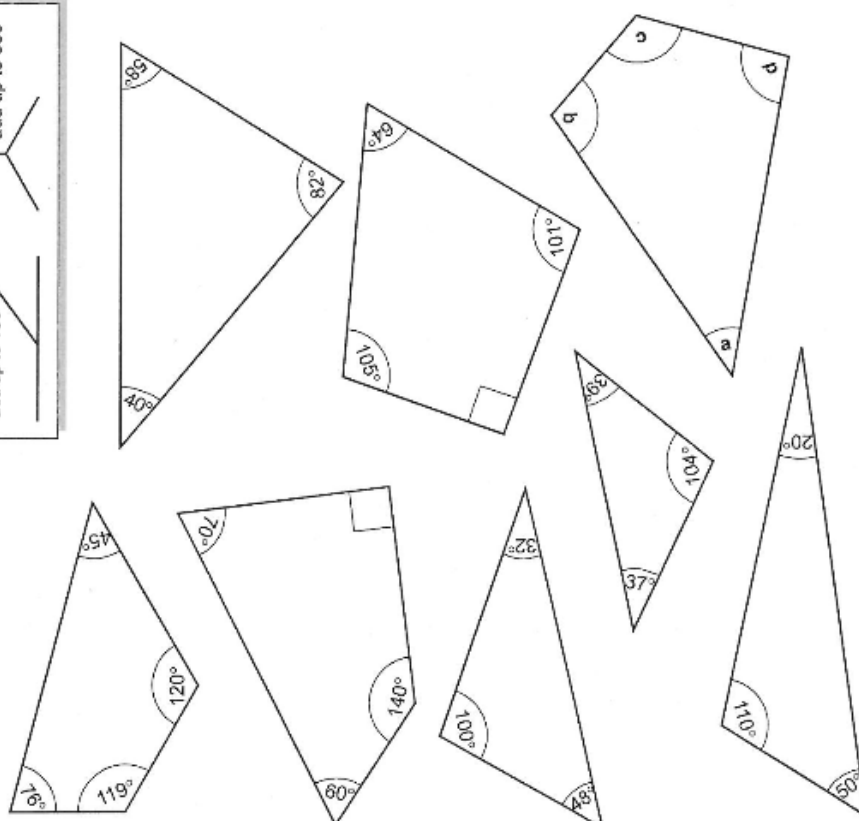
**a** =  
**b** =  
**c** =  
**d** =

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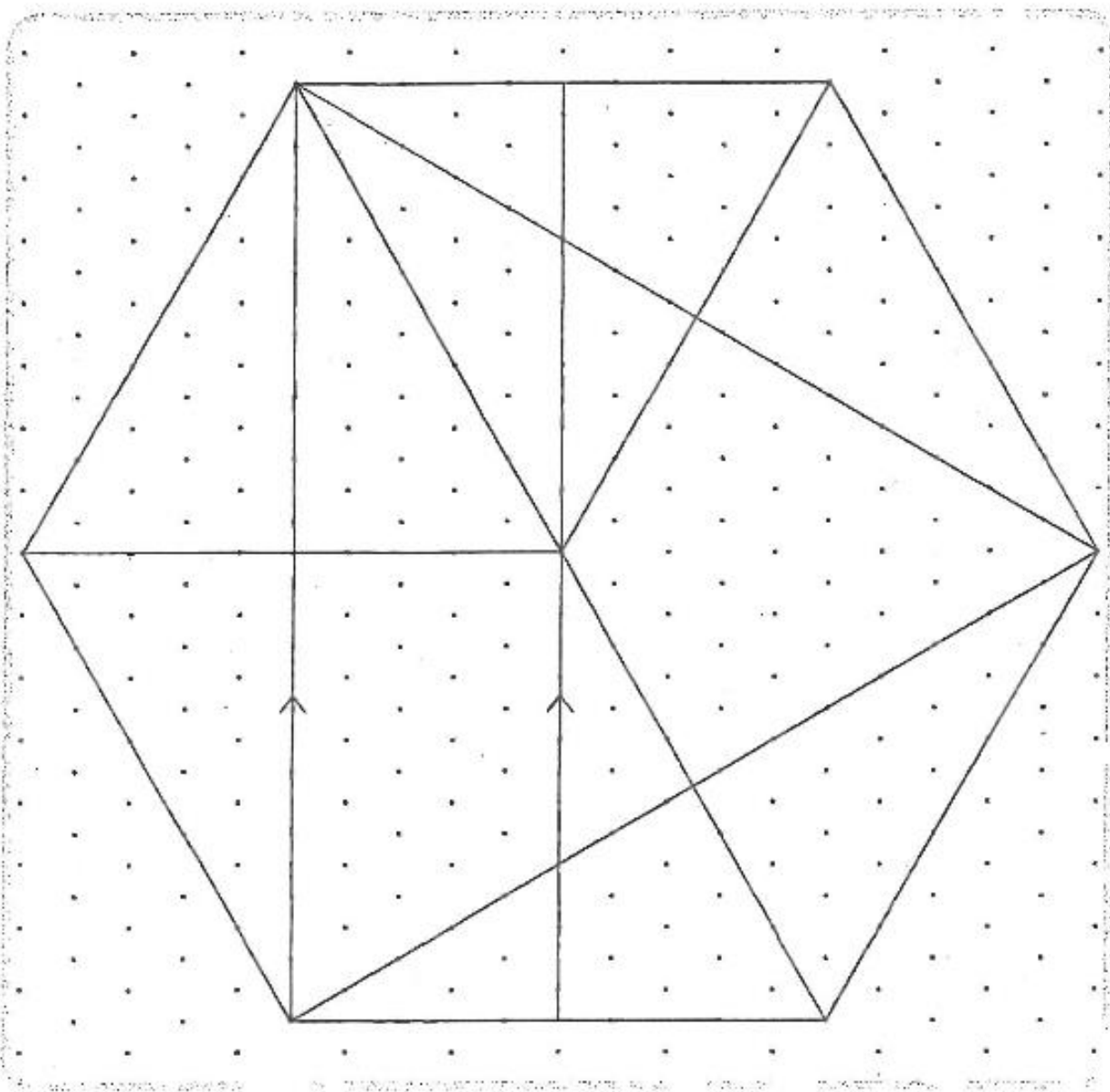
## Angle Fit

Carefully cut out the following shapes.

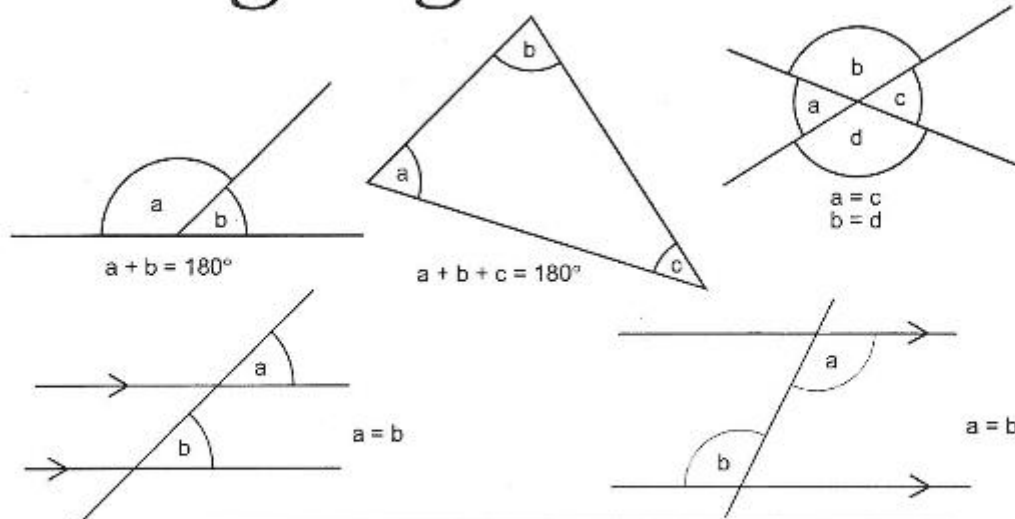


## Angles in a Regular Hexagon

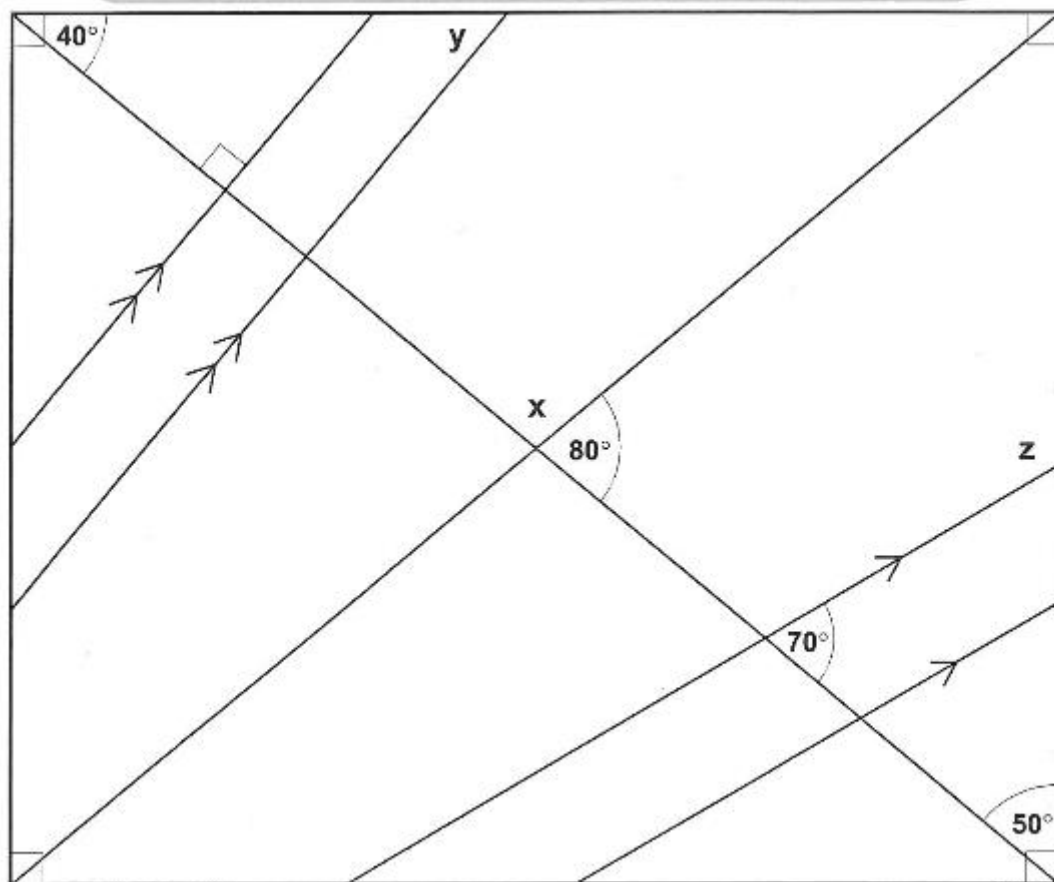
The regular hexagon below is drawn on isometric dotted paper.  
Find all the unmarked angles.

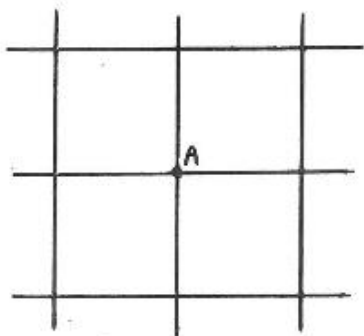


# Missing Angles



1. Calculate and mark in all the missing angles. Do not use an angle indicator.
2. Show how you found angle  $x$ , angle  $y$  and angle  $z$ .

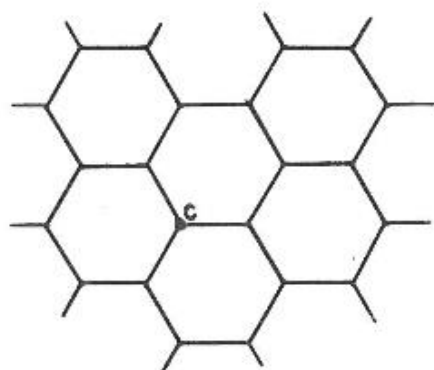
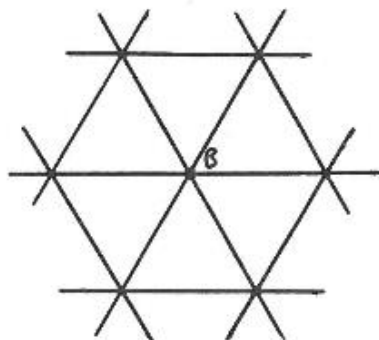


Angles from tessellations

Here is part of a tessellation of squares.

- (1) How many angles are there at A?
- (2) What fraction of a complete turn in each angle?  
A complete turn is  $360^\circ$ , so.....
- (3) What is the angle at each corner of a square?

- (4) How many angles are there at B?
- (5) What is the angle at each corner of an equilateral triangle?



- (6) What is the angle at each corner of a regular hexagon ?

- (7) Here is part of a tessellation of squares and regular octagons.

Work out the angle at the corner of a regular octagon.

