Higher Maths Sample 1 P2 Q1

Four of the interior angles of a seven-sided polygon are 114°, 150°, 160° and 170°.
The other three interior angles of this polygon are equal.
Calculate the size of each of the other three interior angles. [5]

Higher Maths Summer 2018 P2 Q2ab

Circle the correct answer in each of the following.

(a) Which of the following values **cannot** be an external angle of a regular polygon? [1]

10° 18° 30° 48° 72°

(b) An arrow on a spinner is facing north.
It is turned clockwise through an angle of 1530°.
In which direction will the arrow now be facing? [1]

North East South West None of these

Higher Maths June 2017 P2 Q2

Show that the triangle below is **not** a right-angled triangle. [5]

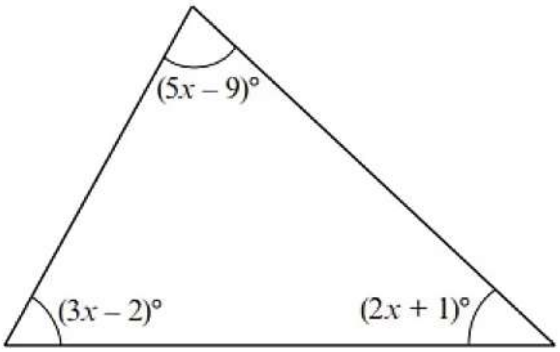


Diagram not drawn to scale

Higher Numeracy Nov 2018 P1 Q2

Yousef has a piece of wallpaper.

He wants to draw some of the leaves to create a different design to screen print.

Yousef draws lines on the wallpaper.
Some of the lines are parallel.
He measures four angles and needs to calculate four more.

Diagram not drawn to scale

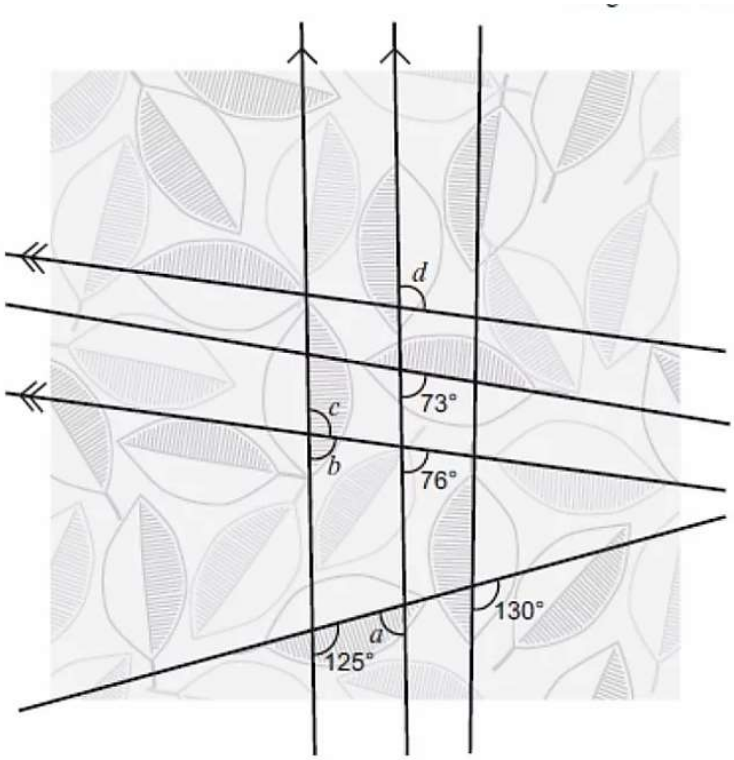


Diagram not drawn to scale

Find the size of each of the angles a, b, c and d. [4]

Higher Maths Summer 2019 P1 Q3

In this question, you will be assessed on the quality of your organisation, communication and accuracy in writing.

A **regular** octagon with centre O is shown below.

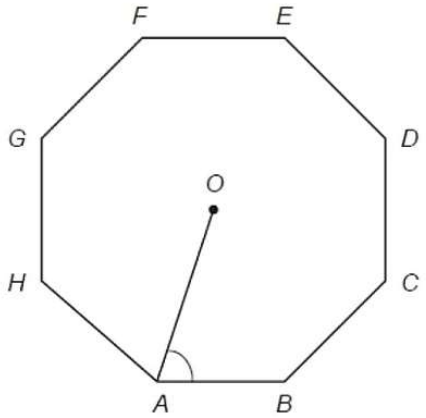


Diagram not drawn to scale

Calculate the exact size of $\hat{OAB}$.
You may choose to draw additional lines on the diagram to help you.
You must show all your working. [4 + 2 OCW]

Higher Maths Sample 1 P1 Q3b

(b) A regular polygon has interior angles of 135°.
How many sides does this polygon have? [3]

Higher Maths Nov 2017 P2 Q3

ABC is an isosceles triangle with *AB* = *AC*.

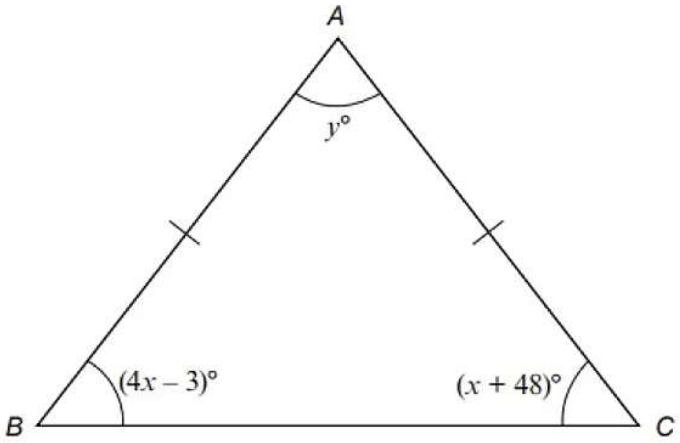


Diagram not drawn to scale

Calculate the value of y. [6]

Higher Maths Nov 2016 P1 Q3a

A regular polygon has exterior angles of 45°.

(a) How many sides does this polygon have? [2]

Higher Numeracy Summer 2019 P1 Q3b

(b) The trees are planted in identical pots. They each have a uniform cross-section in the shape of a regular hexagon.

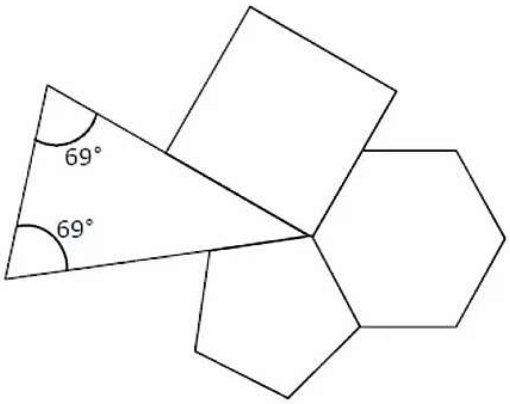
Show that these pots will tessellate. [1]

Higher Maths Sample 2 P1 Q4

4. *You will be assessed on the quality of your organisation, communication and accuracy in writing in this question.*

Prove that it is possible for a square, a regular pentagon, a regular hexagon and an isosceles triangle with two equal angles of 69° to meet at a point as shown below.

[6 + OCW 2]



Higher Maths Summer 2018 P1 Q9

In this question, you will be assessed on the quality of your organisation, communication and accuracy in writing.

In the triangle ABC shown below, $B\hat{A}C = 40°$ and $A\hat{C}B = 80°$.
X is a point on side AC such that $BX = BC$.

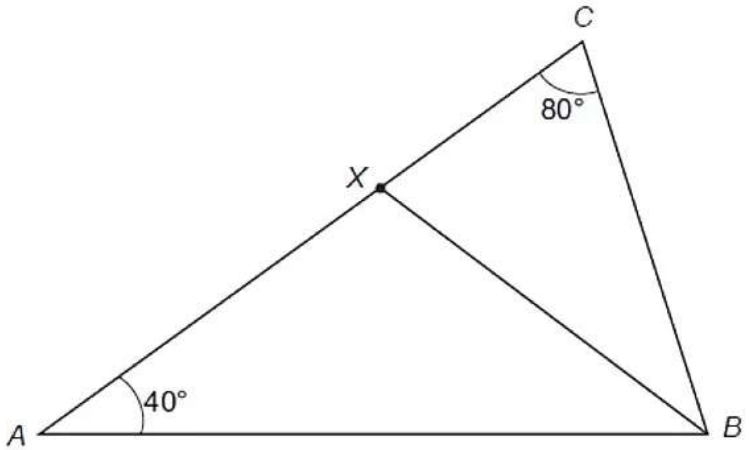


Diagram not drawn to scale

Prove that $AX = BX$.
Give reasons for each step of your proof.
You must show all your working.

[5 + 2 OCW]