**Profile: Thales of Miletus**

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| thales2 | Name: Thales  Born: c. 624 BC  Died: c. 546 BC  Lived: Miletus (now in Turkey)  Job: Philosopher and Mathematician  Known for:   * Proving Thales’ Theorem and sacrificing an ox * Stopping a war by predicting an eclipse of the sun * Being the ‘Father of Science’ |

**The Theorem**

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|  | Look at the diagram on the left.  A, B and C are points on a circle.  If AC is a diameter then angle ABC is a right-angle.  Sometimes, this is remembered as ‘*the angle in a semicircle is a right angle*’. |

**Set-square challenge**

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| 39_set_squares | How can you use a set-square to find the centre of this circle?  *Hint: Thales’ Theorem will help you!* |  |

**Prove it!**

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| This diagram to show Thales’ Theorem has had an extra line, OB, drawn in.  Now look at the eight statements below. Place them in an order which **prove** that Thales’ Theorem is true |  |

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| so x + (x+y) + y = 180˚ |
| Now, angles in a triangle sum to 180˚ |
| so x + y = 90˚ |
| Also, ∠OBC = ∠OCB. Label these ‘y’. |
| Therefore triangles OAB and OBC are isosceles. |
| OA, OB and OC are radii of the circle. |
| so 2x + 2y = 180˚ |
| This means that ∠OAB = ∠OBA. Label these ‘x’. |