

Name: _____

Polygons

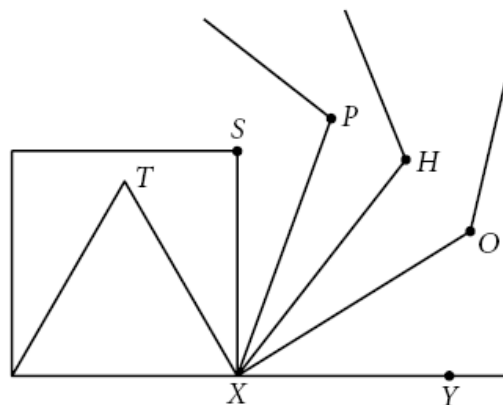
- 1) Calculate the sizes of the exterior and interior angles of:
 - 1) A regular octagon
 - 2) A regular decagon

- 2)
 - 1) Calculate the size of the interior angles of a regular 12 – sided polygon.
 - 2) What is the sum of the interior angles of a regular 12 – sided polygon?

- 3)
 - 1) Calculate the size of the interior angles of a regular 20 – sided polygon.
 - 2) What is the sum of the interior angles of a regular 20 – sided polygon?

- 4) Calculate the size of the exterior angle of a regular pentagon.

- 5) The size of the exterior angle of a regular polygon is 12° . How many sides does this polygon have?
- 6) Show why it is impossible for a regular polygon to have an interior angle of 123°
- 7) The exterior angle of a regular polygon is 4° .
- 1) How many sides does the polygon have?
 - 2) What is the sum of the interior angles of the polygons?
- 8) \overline{XT} is the side of an equilateral triangle. \overline{XS} is the side of a square. \overline{XP} is the side of a regular pentagon. \overline{XH} is the side of a regular hexagon. \overline{XO} is the side of a regular octagon.



- 1) $m\angle TXS$
- 2) $m\angle SXP$
- 3) $m\angle PXH$
- 4) $m\angle HXO$
- 5) $m\angle OXY$