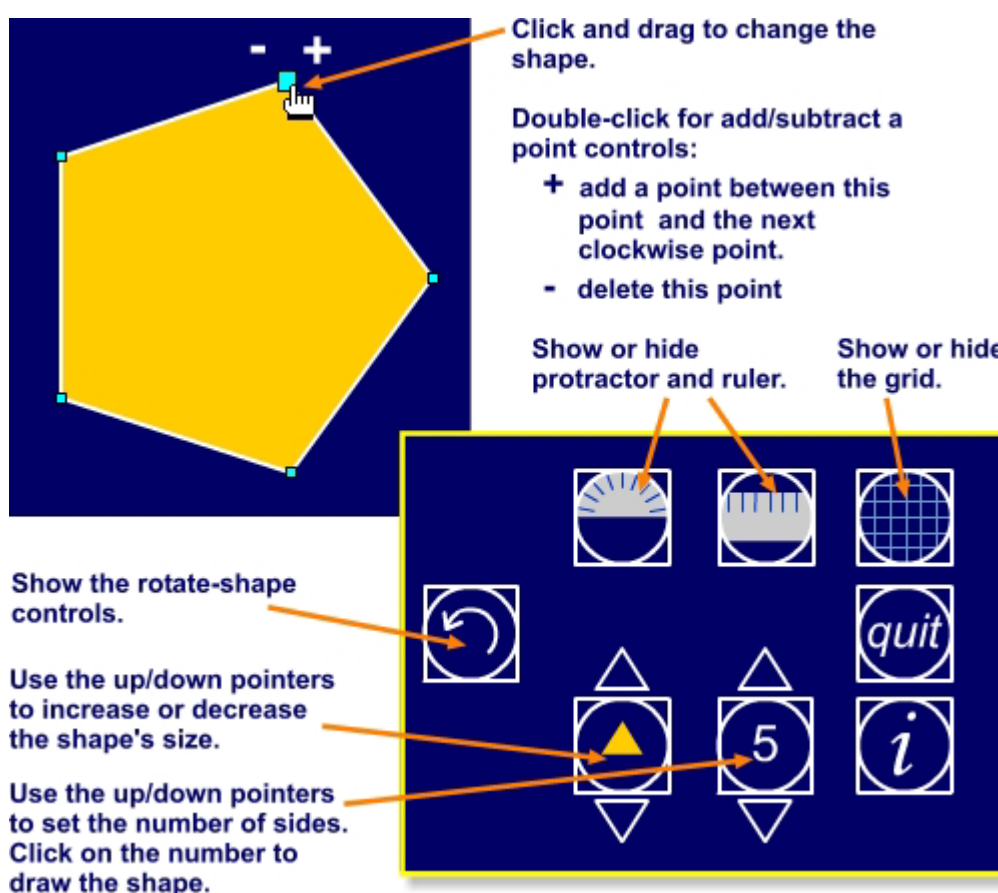


Polygon

This ITP displays regular polygons with 3 to 10 sides. A background grid can be revealed and hidden and the displayed polygon can be enlarged using the pointers on the polygon button. The polygon can be translated and rotated. A vertex on the polygon can be dragged to another position to change its shape and properties. Double clicking on a vertex allows you to add remove the vertex or to add an extra vertex at the mid point of an adjacent side. You can use the ruler or protractor to measure dragging it and using the circular button to rotate it to the required position.

The ITP can be used to explore the properties of regular and irregular polygons. Children's understanding of the angular properties of polygons can be developed. Children's hypotheses about properties of sides and internal and external angles can be verified by measurement. Using the grid, children can explore the areas of polygons; identify which polygon's vertices fit onto the grid points and look at how they calculate the areas of rectilinear shapes.



Click and drag to change the shape.

Double-click for add/subtract a point controls:

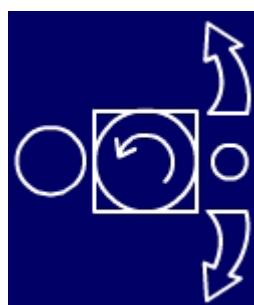
- + add a point between this point and the next clockwise point.
- delete this point

Show or hide protractor and ruler. **Show or hide the grid.**

Show the rotate-shape controls.

Use the up/down pointers to increase or decrease the shape's size.

Use the up/down pointers to set the number of sides. Click on the number to draw the shape.



Rotate shape controls

Click on the arrows to rotate the shape.

Click on the large circle to set the turn to 5° per click.

Click on the small circle to set the turn to 0.5° per click.