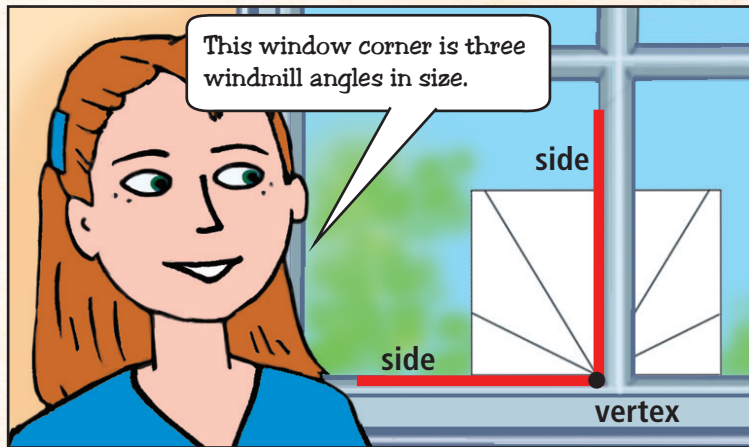
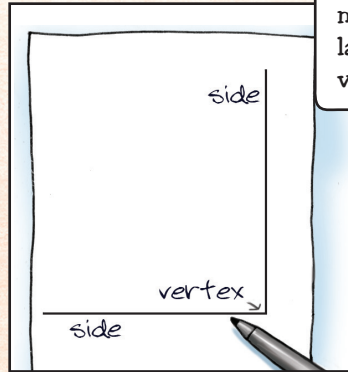


Finding angles with the windmill angle tester

The Mathomat kids are measuring the size of angles with their windmill angle testers.



The right angle

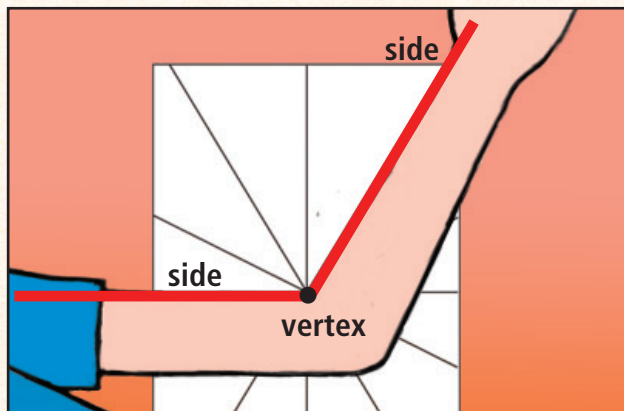


I've drawn it with my Mathomat and labelled its sides and vertex.

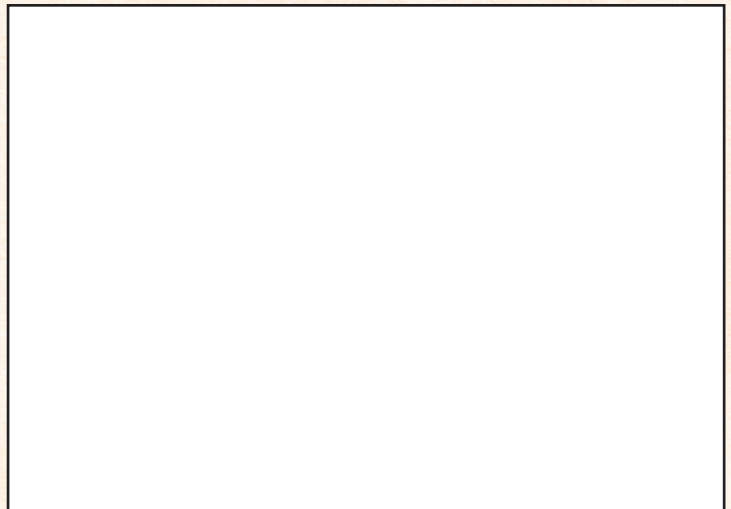
Use your folded windmill angle tester to check the angle that Jake has drawn is exactly three windmill angles in size.

The obtuse angle

This arm angle measures 4 windmill angles in size using our angle tester.



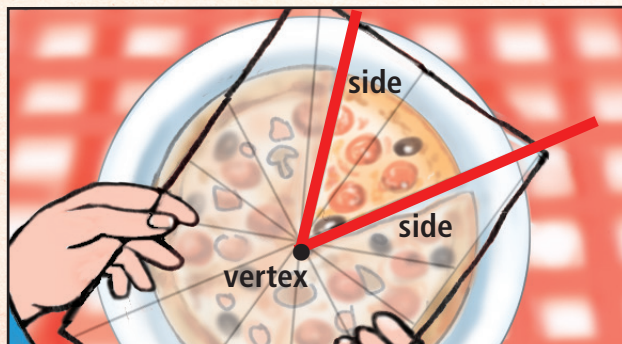
Obtuse angles are bigger than a right angle and less than 6 windmill tester angles in size.



Use your Mathomat to draw an obtuse angle the same size here. Check that it is 4 windmill tester angles in size.

The acute angle

The transparent angle tester is showing an angle in the pizza that is in-between 1 and 2 windmill angle tester angles in size.



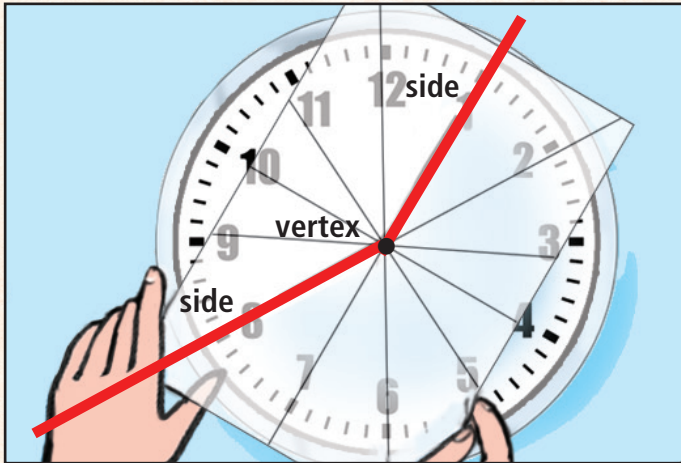
Acute angles are less than right angles but greater than 0 windmill angle tester angles in size.



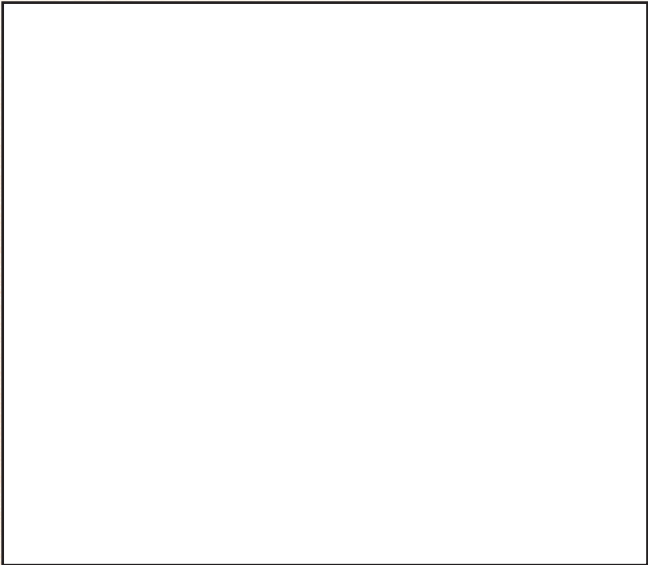
Use your Mathomat to draw the same size acute angle here. Check with your windmill angle tester that it is in between 1 and 2 windmill angle tester angles in size.

The reflex angle

The clock hands are showing an angle that is 7 windmill angles in size underneath the tracing paper angle tester.



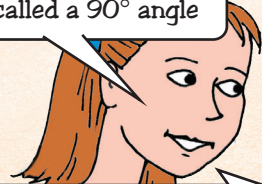
Reflex angles are more than two right angles (6 windmill angle tester angles) but less than 12 windmill angle tester angles in size.



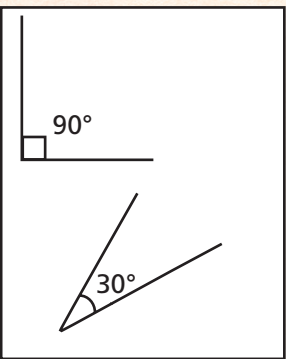
Draw the same reflex angle in the space above using your Mathomat. Check that it's exactly the same size using your windmill angle tester.

Using degrees

I know a right angle is also called a 90° angle

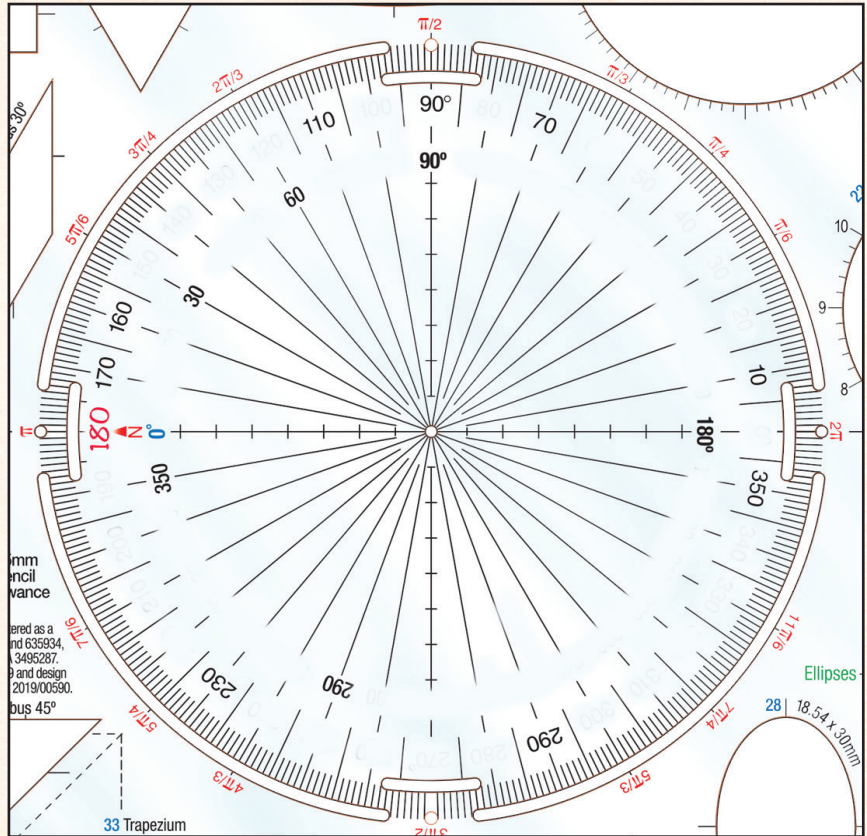
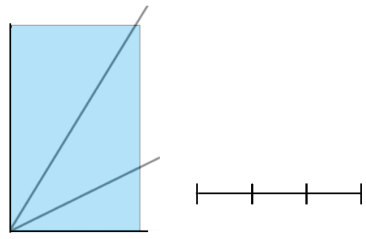


So, if 3 windmill angles equal a right angle, a windmill angle must be 30° .



One degree, 1° looks like this:

The size of an angle is equal to the number of angle units that fit into it. Just as the length of a line is equal to the number of length units that fit into it.



Protractor challenge

Your Mathomat protractor is marked in degrees. Each long line is 10 degrees.

Use your Mathomat as a guide to fill in the missing degree numbers from this picture of a Mathomat protractor.

The Babylonians invented the degree. Based on 360 days in their year, they put 360° around a point to measure angle.