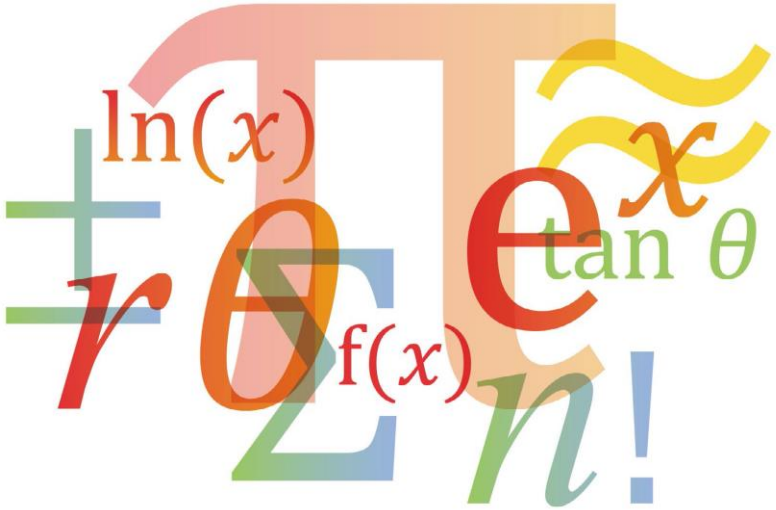
Cambridge Assessment International Education

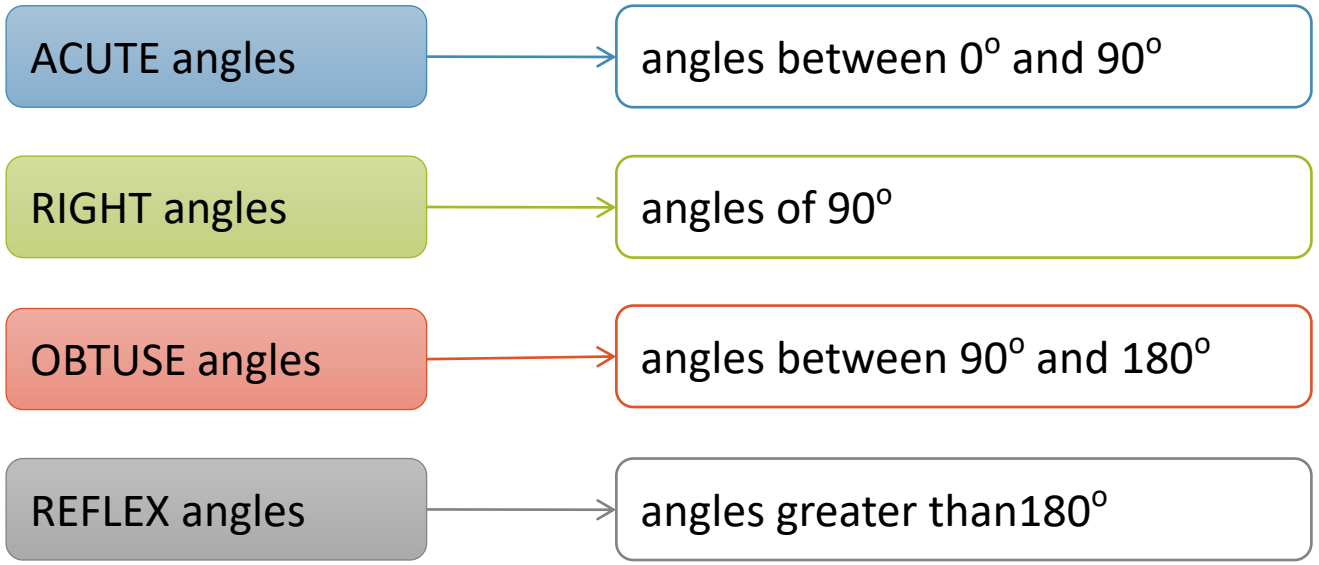
Cambridge Checkpoint

Chapter 17:
ANGLE PROPERTIES

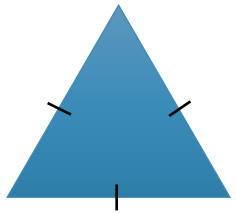


Cambridge Pathway

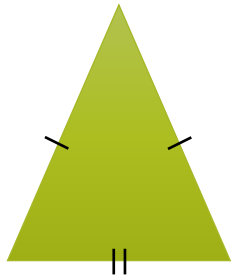
Names of angles



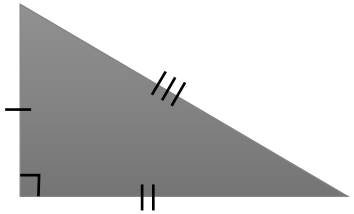
Names of triangles



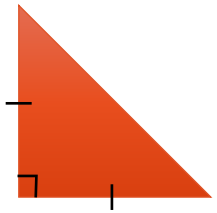
equilateral triangle



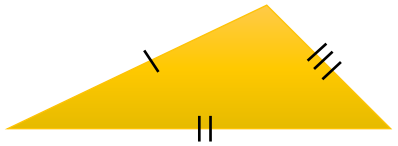
isosceles triangle



right-angled triangle



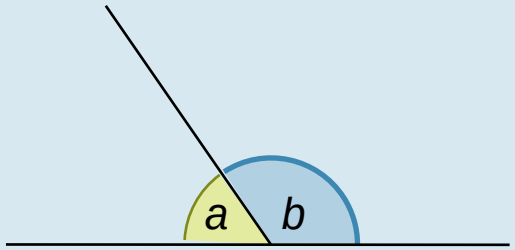
right-angled isosceles triangle



scalene triangle

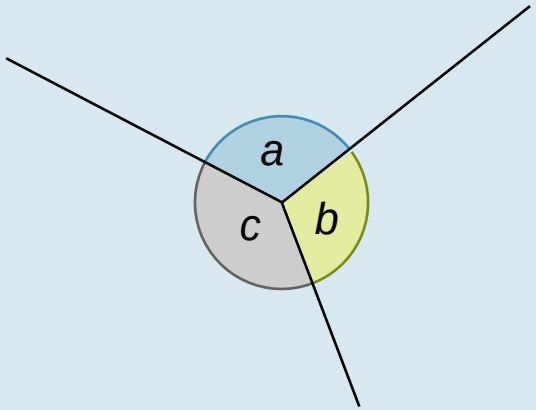
Angle properties

Supplementary angles



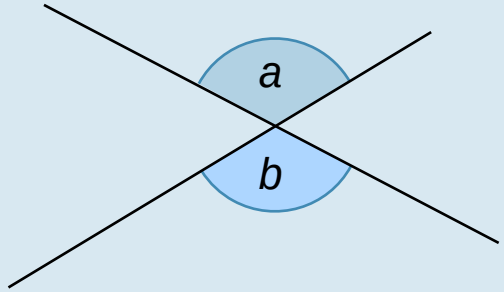
$a + b = 180^o$

Angles at a point



$a + b + c = 360^o$

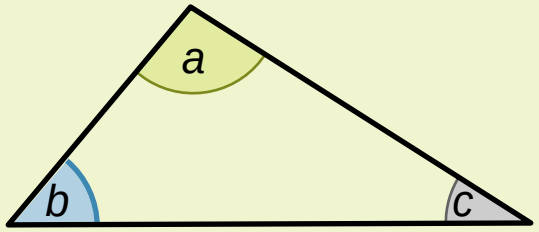
Vertically opposite angles



$a = b$

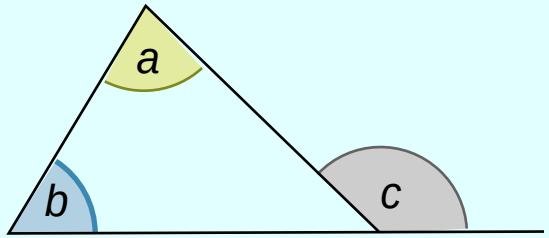
Angle properties

Angles in a triangle



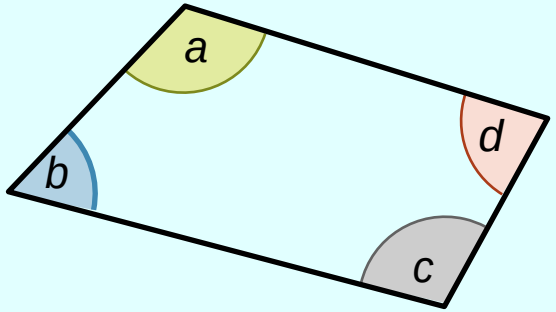
$a + b + c = 180^o$

Exterior angles of a triangle



$a + b = c$

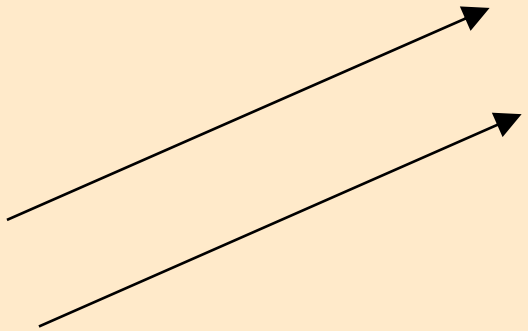
Angles in a quadrilateral



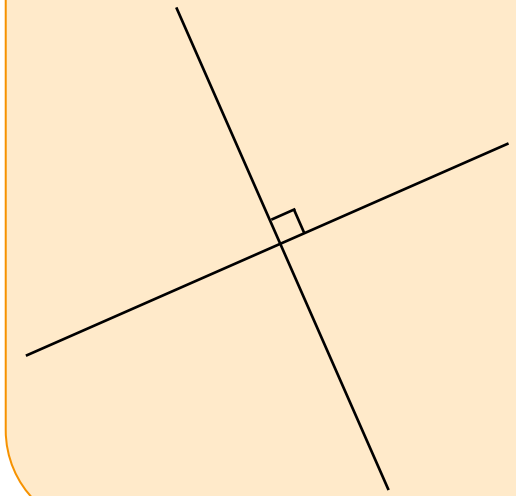
$a + b + c + d = 360^o$

Parallel and perpendicular lines

Parallel lines

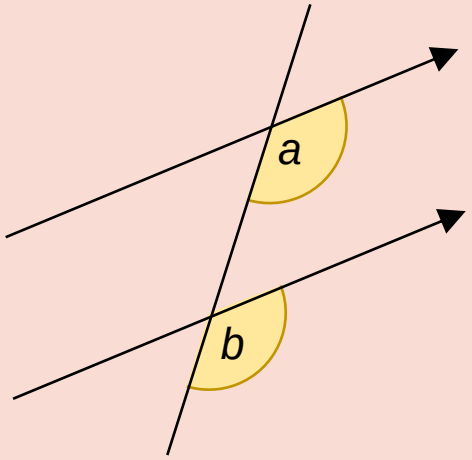


Perpendicular lines



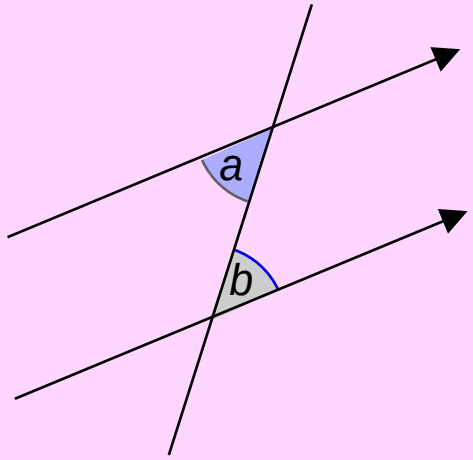
Angle properties of parallel lines

Corresponding angles



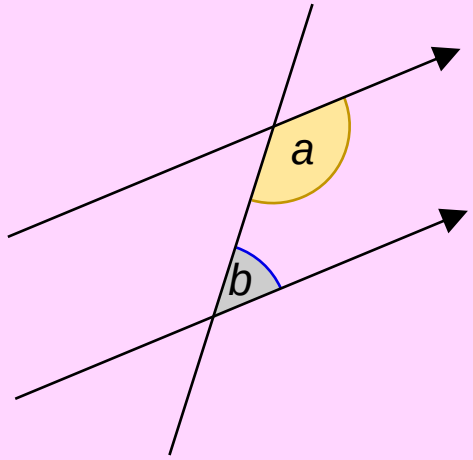
$a = b$

Alternate angles



$a = b$

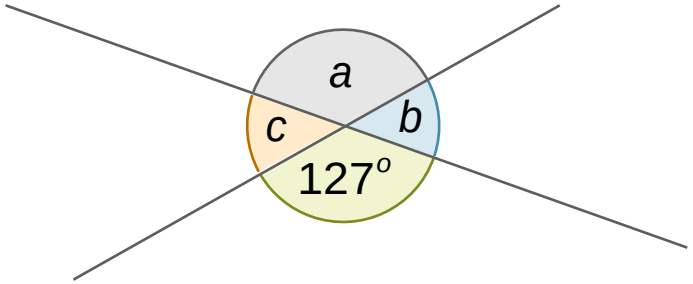
Interior angles



$a + b = 180^o$

Examples

1 Calculate the size of each lettered angle.



$a = 127^o$ opposite angles

$a + b = 180$ angles on a straight line

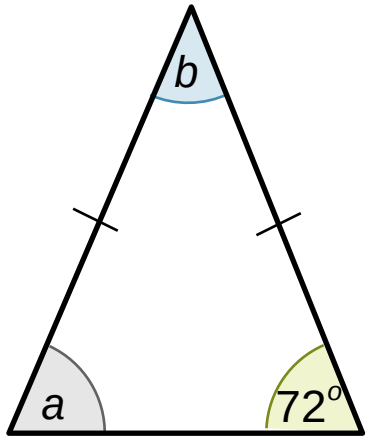
$b + 127 = 180$

$b = 53^o$

$c = 127^o$ opposite angles

Examples

2 Calculate the size of each lettered angle.



$a = 72^o$ isosceles triangle

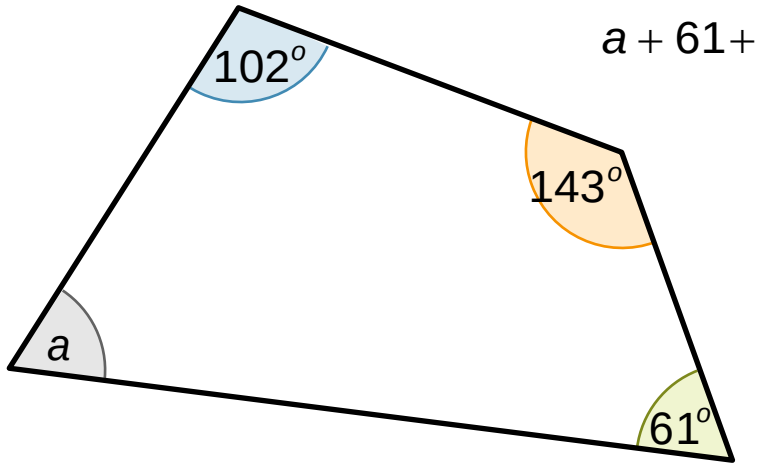
$a + b + 72 = 180$ angles in a triangle

$b + 144 = 180$

$b = 36^o$

Examples

3 Calculate the size of angle a.



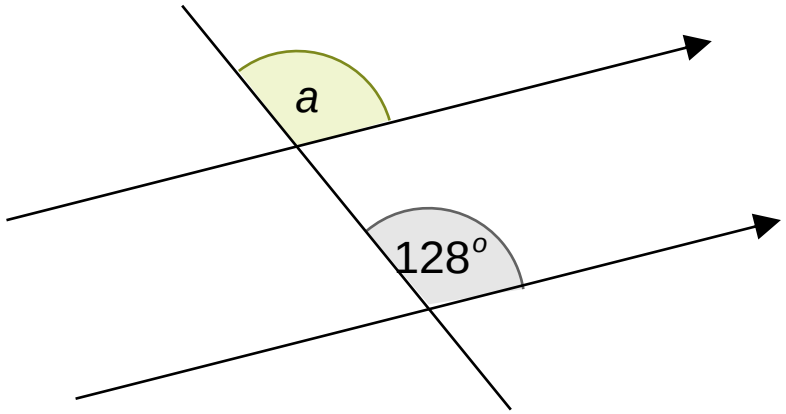
$a + 61 + 143 + 102 = 360$ angles in a quadrilateral

$a + 306 = 360$

$a = 54^{o}$

Examples

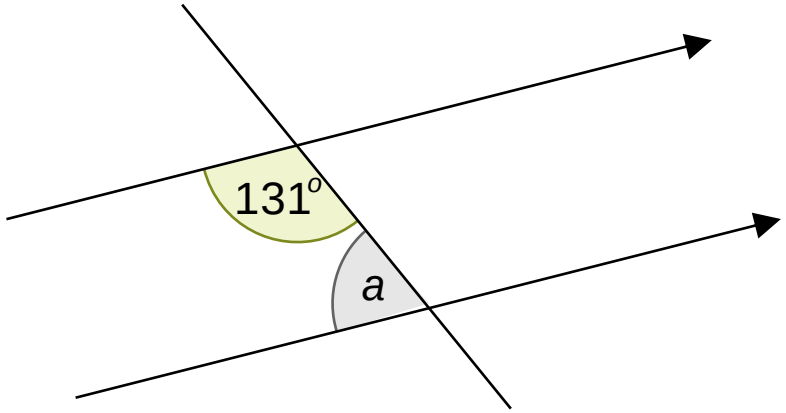
4 Calculate the size of angle a.



$a = 128^o$ corresponding angles

Examples

5 Calculate the size of angle a.

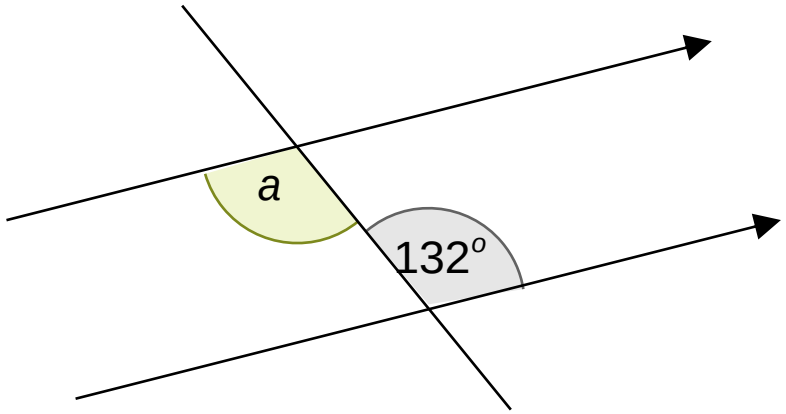


$a + 131 = 180$ interior angles

$a = 49^{o}$

Examples

6 Calculate the size of angle a.



$a = 132^o$ alternate angles