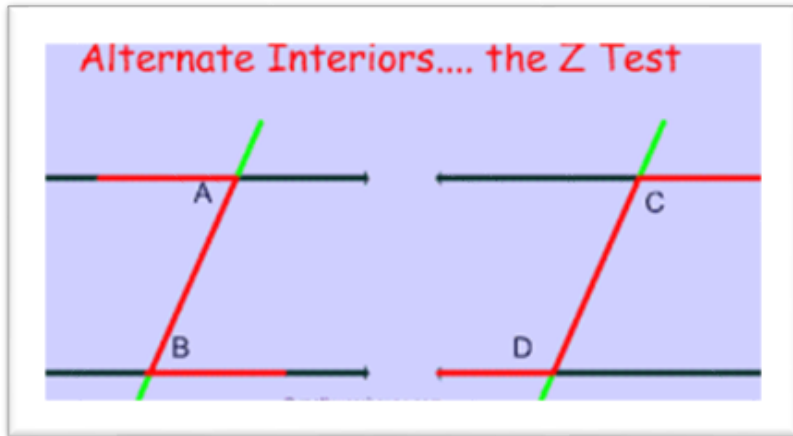


Challenge 1 Day 3: Solving Problems in Angles

Lines that cut across parallel sides (lines that are opposite and do not meet) form opposite angles that look like a Z shape. The opposite angles are equal. Sometimes it can look like a Z flipped the other way around.



Z

Z flipped

If angle A = 70 degrees, B would also be 70 degrees.

If angle C is 110 degrees, D would also be 110 degrees.

Have a go at the Guided Practice.

1. $m =$ $n =$
2. $p =$ $q =$

Guided Practice

1 Find $\angle m$ and $\angle n$.

The diagram shows a rectangle with a transversal line cutting through it. At the bottom-left corner, the angle between the transversal and the bottom side is labeled m . At the top-right corner, the angle between the transversal and the top side is labeled n . At the bottom-right corner, the angle between the transversal and the bottom side is labeled 65° . A thought bubble above the transversal shows a 'Z' shape formed by two parallel lines and the transversal, with blue triangles at the alternate interior angles.

2 Find $\angle p$ and $\angle q$.

The diagram shows a rectangle with a transversal line cutting through it. At the top-left corner, the angle between the transversal and the top side is labeled 59° . At the bottom-left corner, the angle between the transversal and the bottom side is labeled p . At the bottom-right corner, the angle between the transversal and the bottom side is labeled q . A dashed line extends from the bottom-left corner to the left.

Things to remember:

Angles on a straight line = 180 degrees

Square in a corner represents a 90 degree angle

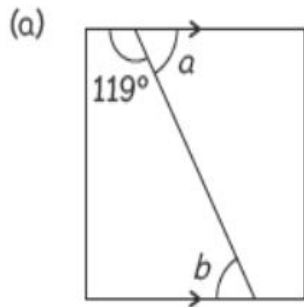
Angles in a quadrilateral = 360 degrees

Angles that form a Z shape, the opposite angles are equal

Ch1 Worksheet:

Solving Problems Involving Angles

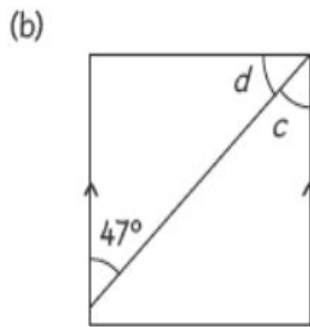
1 The diagrams below show rectangular sheets of paper that have been folded. Find the unknown angle in each diagram.



$\angle a =$

$\angle b =$

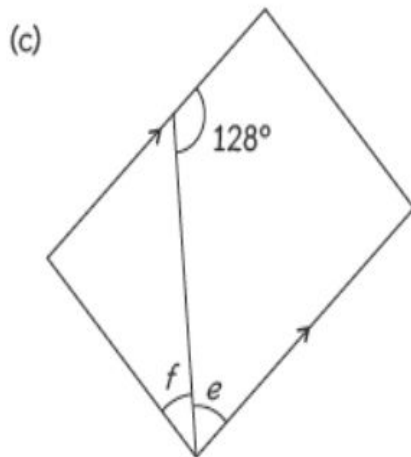
$a =$
 $b =$



$\angle c =$

$\angle d =$

$c =$
 $d =$



$\angle e =$

$\angle f =$

$e =$
 $f =$