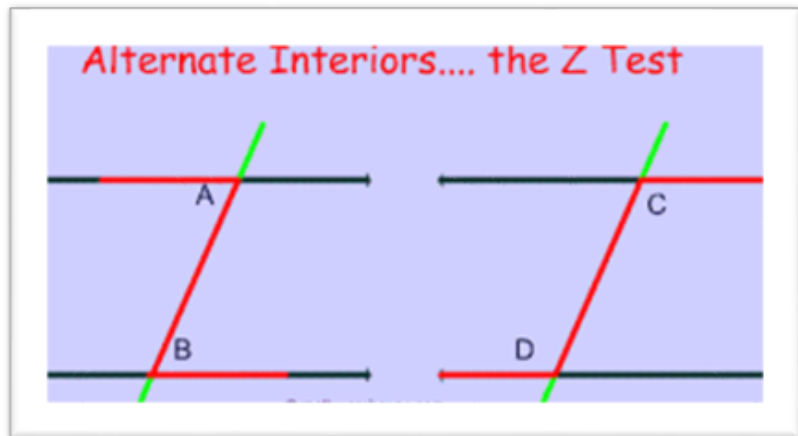


Challenge 2 Day 3: Solving Problems in Angles

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 for problem 1 shows a rectangle with a transversal line intersecting the top and bottom sides. The top side has an angle labeled n and the bottom side has an angle labeled m . A 65-degree angle is marked at the bottom right corner. A cartoon girl is pointing to the transversal, and a thought bubble shows a 'Z' shape with two blue angles.

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

The diagram for problem 2 shows a rectangle with a transversal line intersecting the top and bottom sides. The top side has an angle labeled 59 degrees. The bottom side has two angles labeled p and q . The bottom right corner is marked with a right angle symbol.

Things to remember:

Angles on a straight line = 180 degrees

Square in a corner represents a 90 degree angle

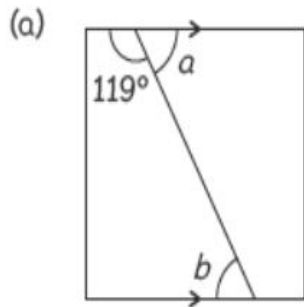
Angles in a quadrilateral = 360 degrees

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

Ch 2 Worksheet:

Solving Problems Involving Angles

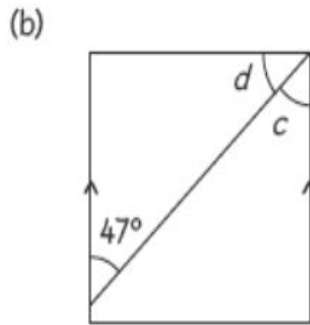
1 The diagrams below show rectangular sheets of paper that have been folded. Find the unknown angle in each diagram.



$\angle a =$

$\angle b =$

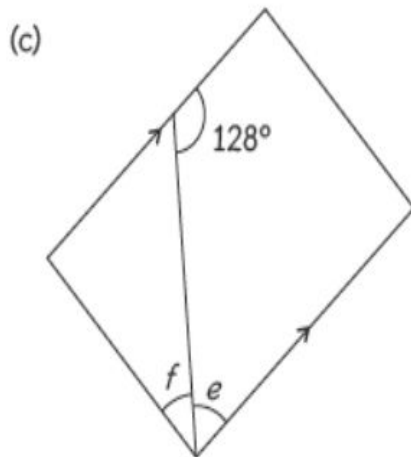
$a =$
 $b =$



$\angle c =$

$\angle d =$

$c =$
 $d =$

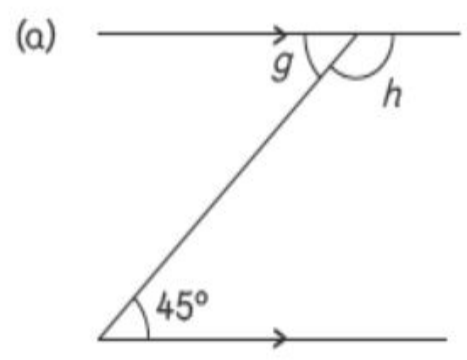


$\angle e =$

$\angle f =$

$e =$
 $f =$

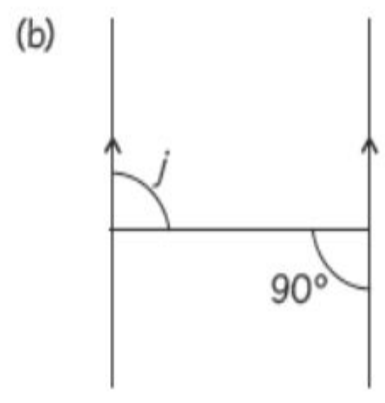
2 Find the unknown angles.



$\angle g =$

$g =$
 $h =$

$\angle h =$



$\angle j =$

$j =$