

Brain dump

angles on a
straight line
total 180°



angles

angles in a
 \triangle total 180°

right angle
 90°

acute $< 90^\circ$
right $= 90^\circ$

angles round a
point total 360°

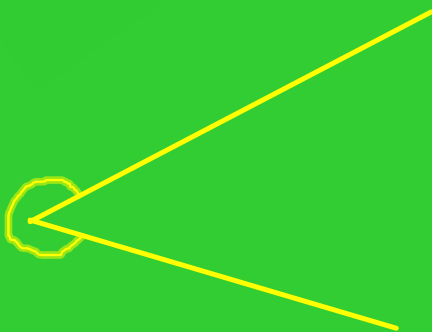
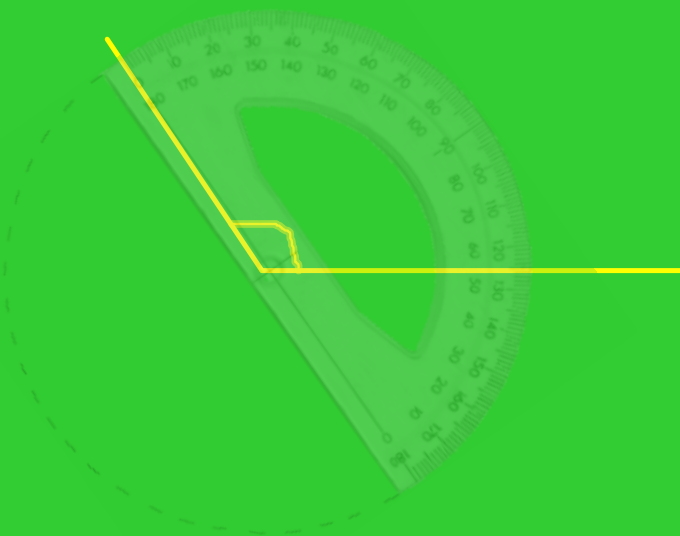
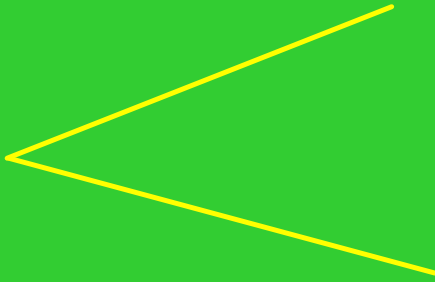
$90^\circ < \text{obtuse} < 180^\circ$
straight line $= 180^\circ$

$180^\circ < \text{reflex} < 360^\circ$

angles in a
quadrilateral
total 360°

Measuring Angles (no angels please)

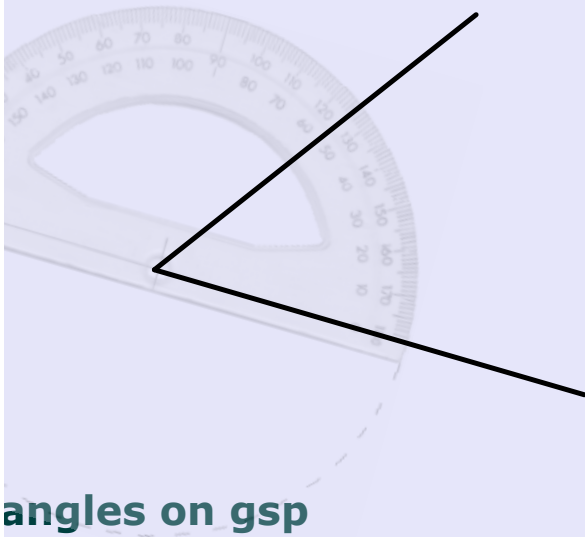
Types of Angle:



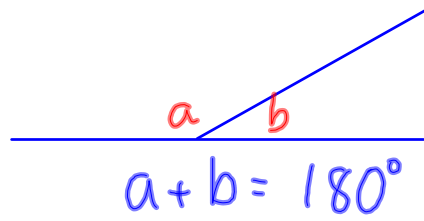
Angles

my points = difference between "size" and actual

size	my actual	fred's actual	my points
50 ⁰	46	50	



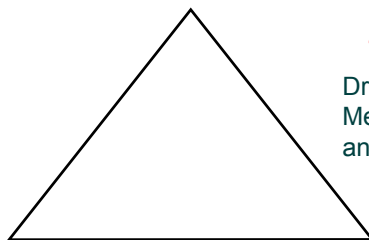
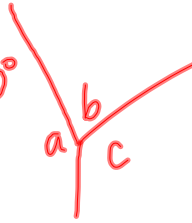
Angles and straight lines



Angles on a straight line total...

Angles round a point total...

$a + b + c = 360^\circ$



Draw a triangle.
Measure the 3 angles
and add them up.

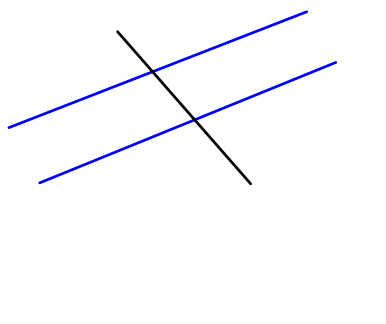
E1 a) $90 - 25 = 65$

b) $180 - 145 = 35$

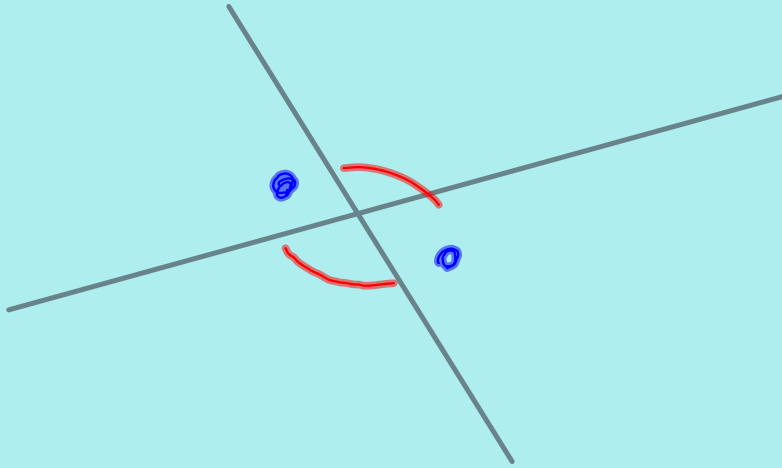
c) $180 - 51 = 129$

d) $180 - 85 = 95$

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Opposite angles



**Draw a pair of intersecting lines like this:
Measure all 4 angles.**

Angle Fact 1:

Angles on a straight line add up to 180° .

Angle fact 2:

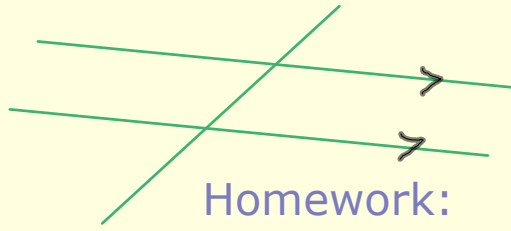
Angles round a point total 360° .

Angle fact 3:

Opposite angles are equal.

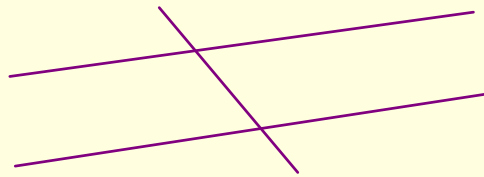
Angles and Parallel lines

In your book draw a pair of parallel lines and another line intersecting it. Like this:



or this:

Homework:
For Monday
page 63



Measure all 8 angles

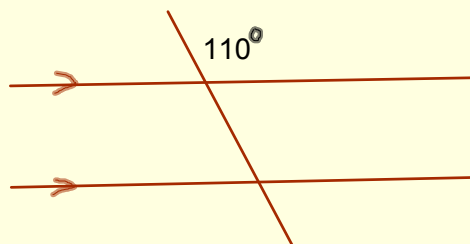
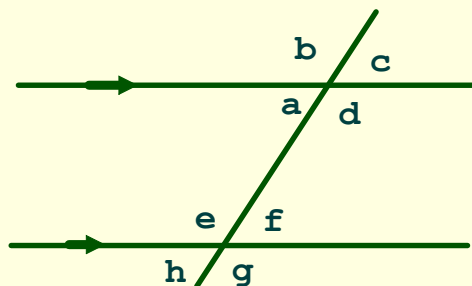
Angle fact 3:

Alternate angles are equal.

To help find alternate angles look for the **Z** shape. Sometimes it is a reflected **Z**:

Angle fact 4:

Corresponding angles are equal.
Look for the F



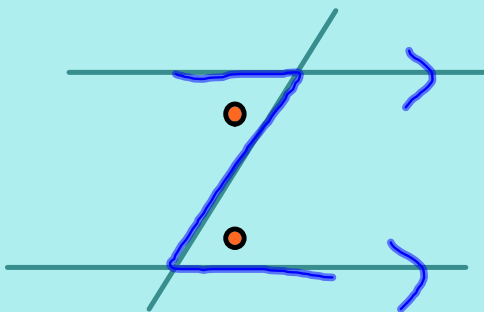
Angles in Parallel lines

Angle fact 3:

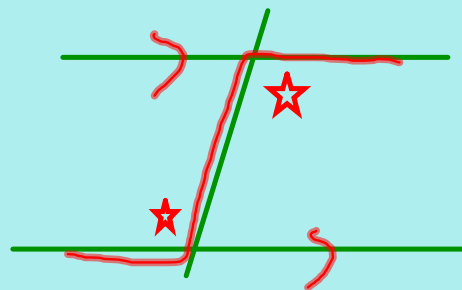
Alternate angles are equal.

To help find alternate angles look for the **Z** shape. Sometimes it is a

reflected **Z**: Σ



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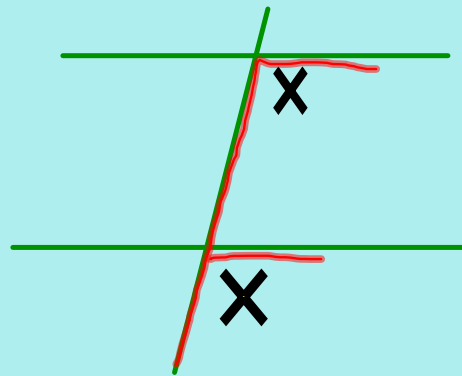
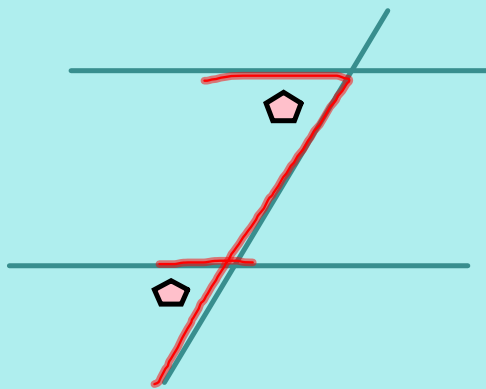


○ alternate

★ alternate

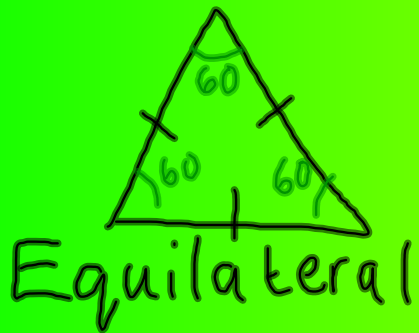
Angle fact 4:

Corresponding angles are equal.
Look for the F or \exists

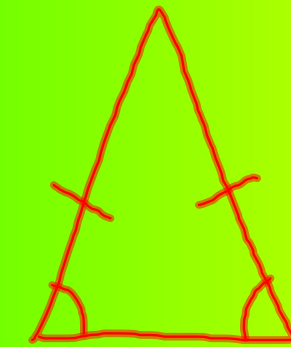


 corresponding 

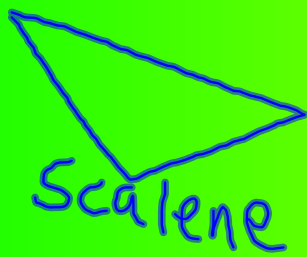
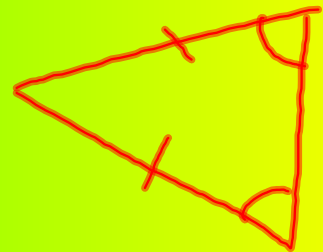
Triangles



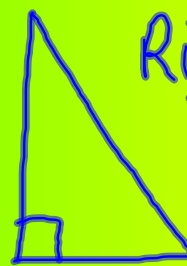
Equilateral



Isosceles



Scalene

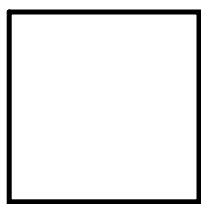


Right-angled triangle

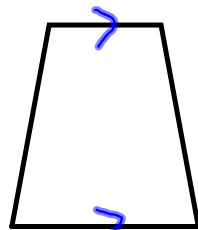
Quadrilaterals

In pairs, how many different quadrilaterals can you draw and name?

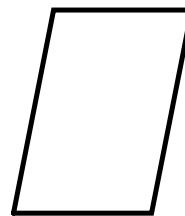
Draw them as accurately as you can.



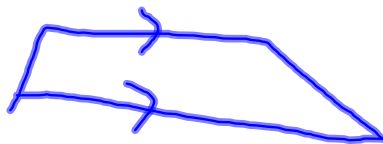
square



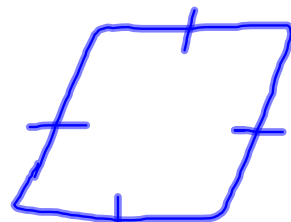
trapezium



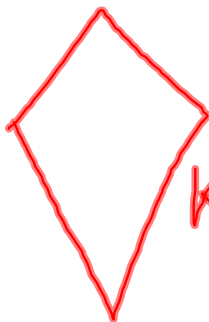
parallelogram



rectangle



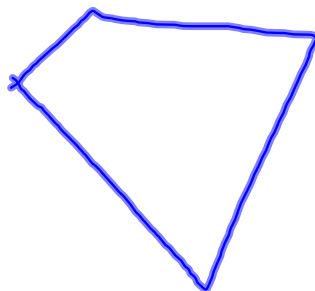
rhombus



kite



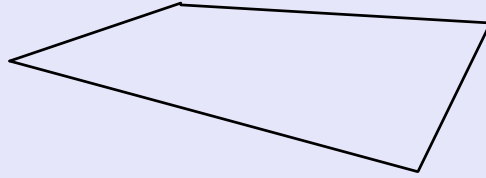
arrowhead



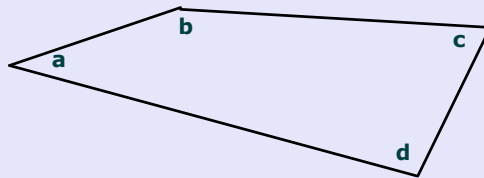
irregular quadrilateral

1. Take a plain piece of paper.
Fold it in half.

2. Draw an irregular quadrilateral.



3. Mark in the 4 angles: a,b,c,d



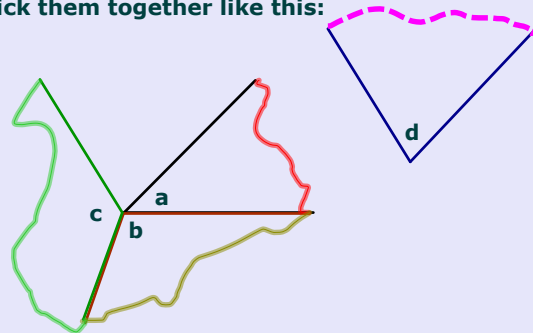
4. Cut out the quadrilaterals.

5. Mark a,b,c,d, on the second quadrilateral.

6. Stick one of the quadrilaterals in your book.

7. Carefully tear off the 4 angles of your other quadrilateral.

8. Stick them together like this:



Copy into your book:

Angles in a quadrilateral total _____, just like
angles round a point.

Intermediate book page 8.

Angles memory game.

Attachments

Mathematical Constructions.ppt

angles.gsp