

I
do

we
do

you
do

LO: to calculate missing angles

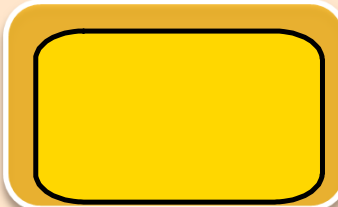
180°

Angles on a
straight line add
up to 180°



360°

Angles in a full
turn add up to
 360°



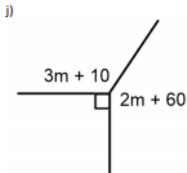
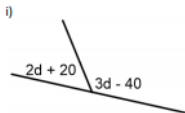
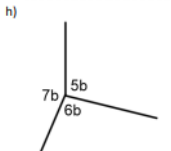
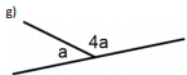
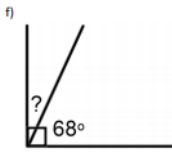
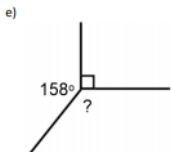
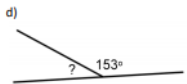
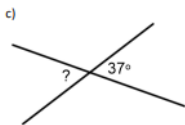
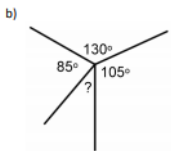
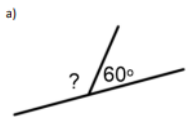
**Intersecting
Lines**

Opposite angles
are equal

The angles add
up to 360°

you
do

You have **5 minutes** to complete from Friday.



a) $180^\circ - 60^\circ = 120^\circ$

b) $130^\circ + 105^\circ + 85^\circ = \underline{\hspace{2cm}}$
 $360^\circ - \underline{\hspace{2cm}} = ?$

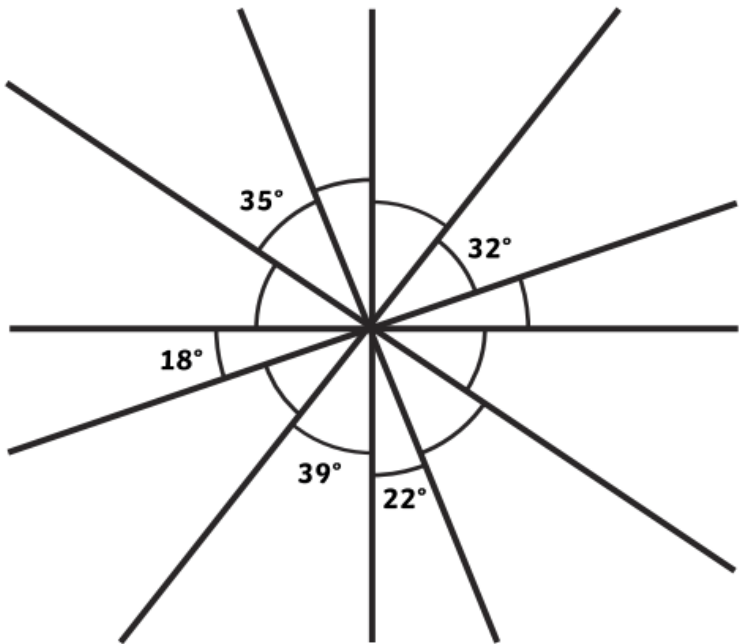
we
do

Pink highlighter ready.....let's mark!

a)	b)	c)
120°	40°	37°
d)	e)	f)
27 37°	112°	22°
g)	h)	i)
a = 36°	b = 20°	d = 40°
j)	m = 40°	

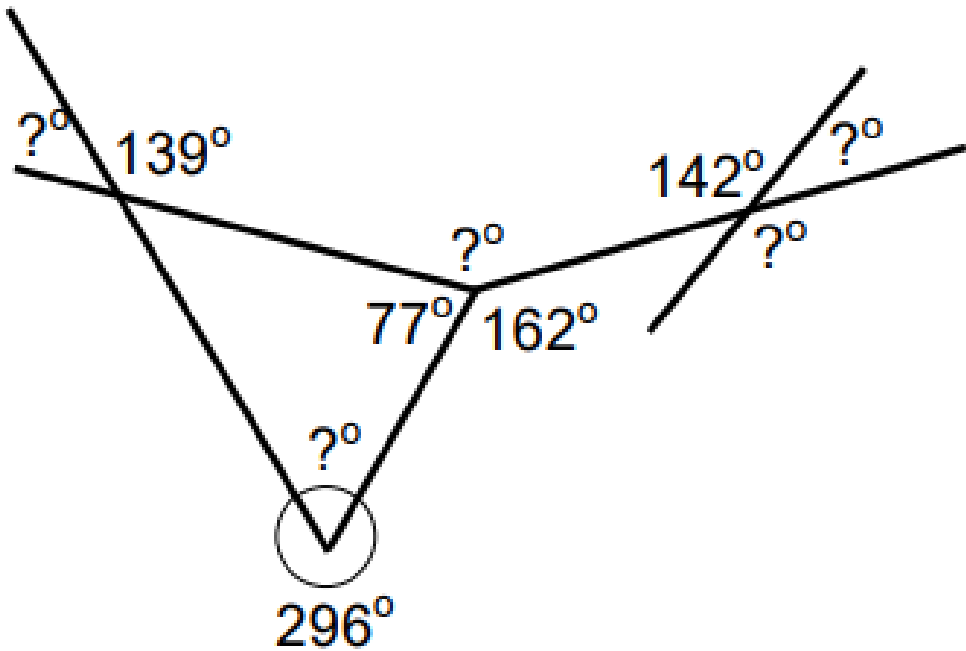
I
do

we
do



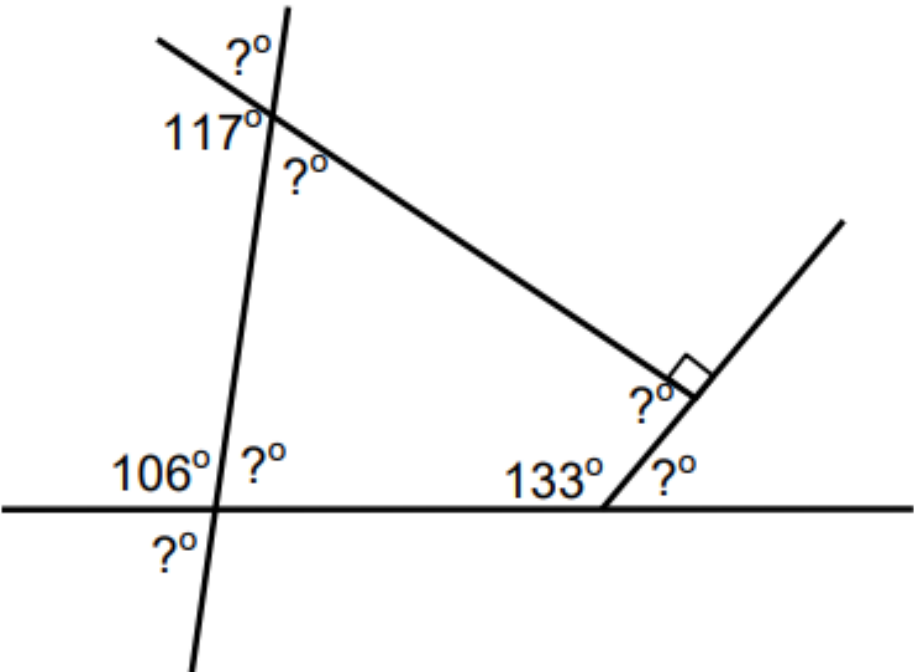
I
do

we
do



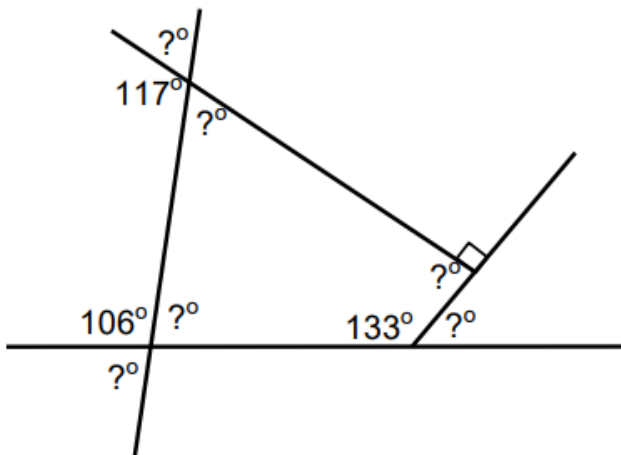
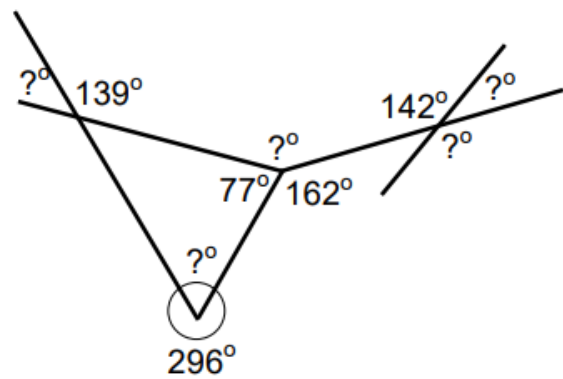
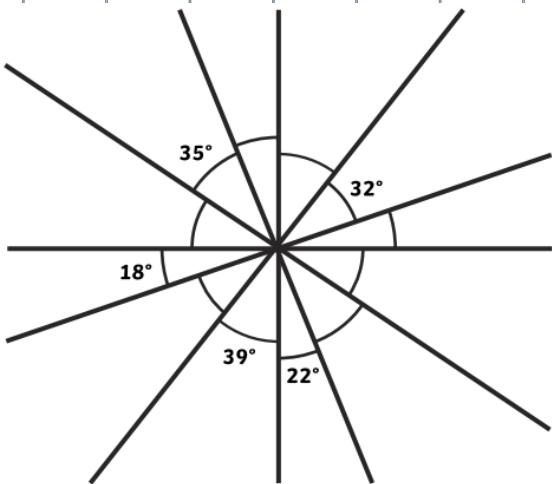
I
do

we
do

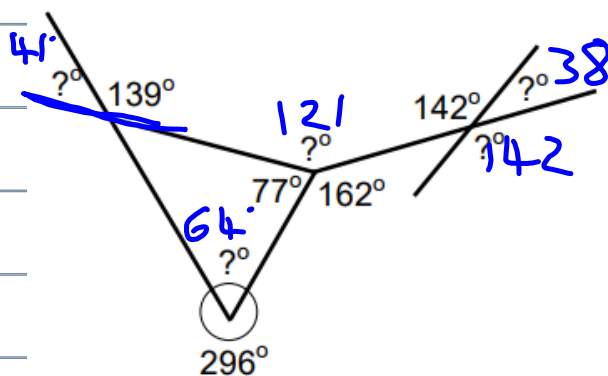
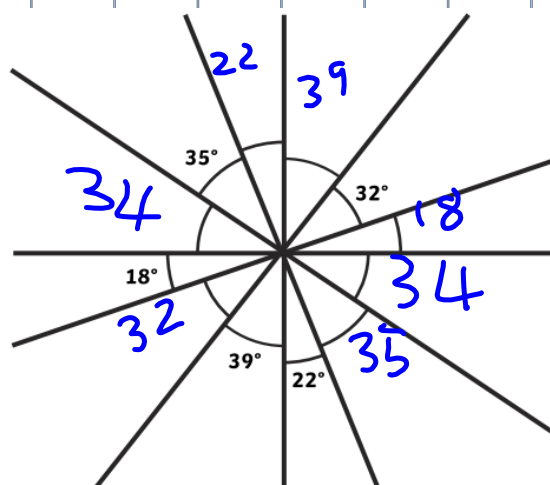


you
do

Complete in books.



Pink highlighter ready.....let's mark!



**I
do****we
do**

Five equal angles all meet around a point.

What is the size of each angle?

Explain how you know.

Four angles lie on a straight line.

One angle is 81°

The other three angles are equal.

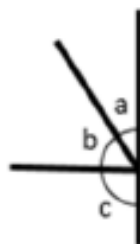
What size are the other three angles?

Draw a diagram to prove your answer.

we
do

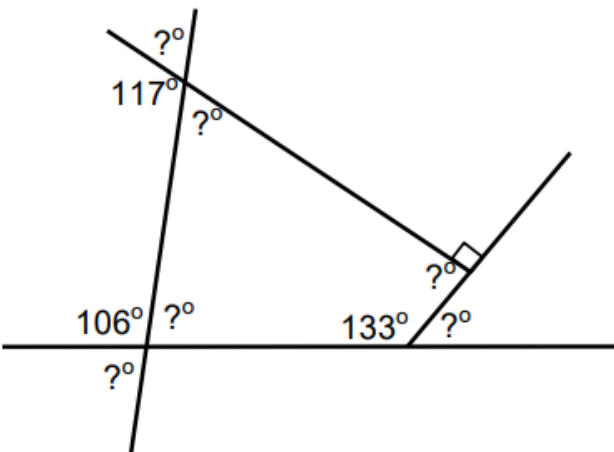
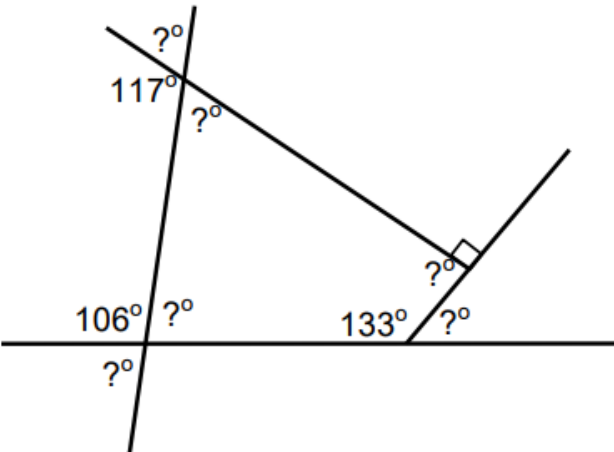
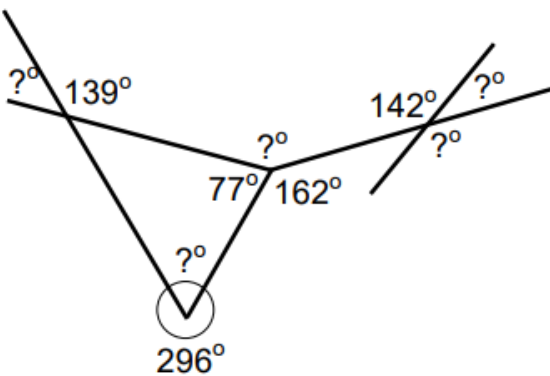
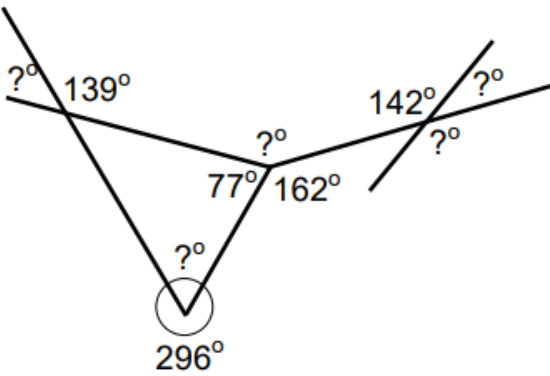
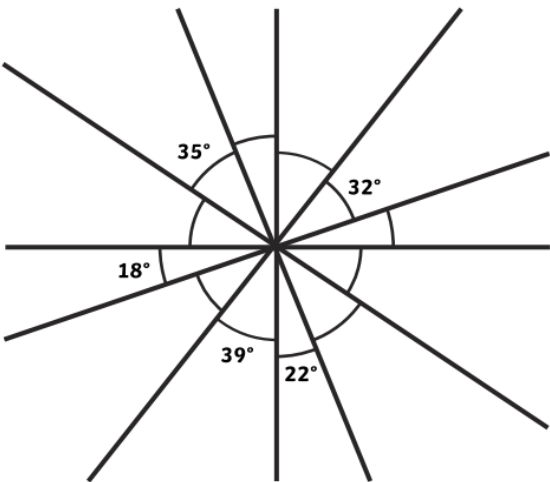
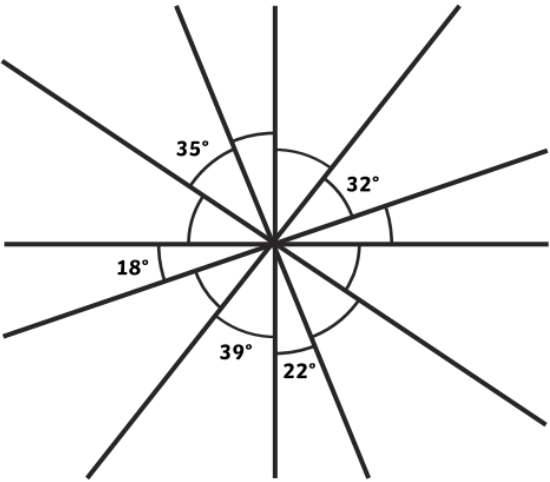
Problem Solving

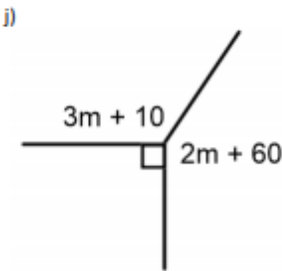
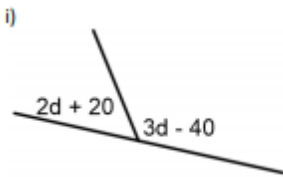
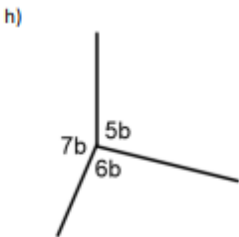
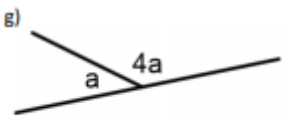
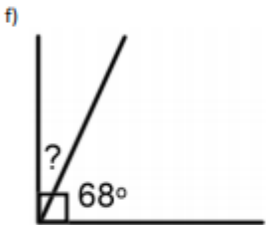
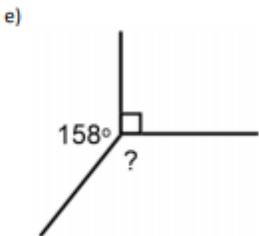
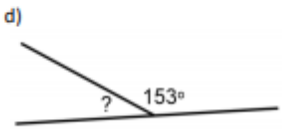
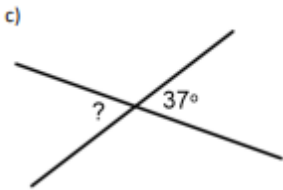
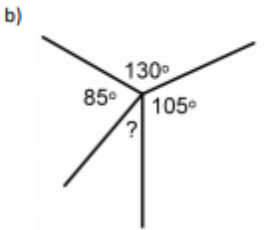
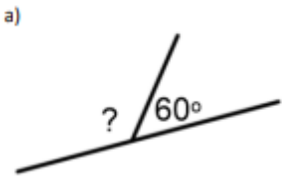
- Three angles are around a point. Angle B is 40° larger than angle A. Angle A is 3 times the size of angle C. What is the size of angle A?
- A, B and C are angles on a straight line. They can be written in the ratio 1:2:3.
 - What is the size of angle B.
 - How much larger is angle C than angle A?
- Two angle are on a straight line. Angle B is 20° larger than angle A. What is the size of angle B?
- Angle B is twice the size of angle A. Angle C is three times the size of angle A. What is the value of A, B and C?



you
do

Complete the reasoning questions in your book.





Five equal angles all meet around a point.

What is the size of each angle?

Explain how you know.

Four angles lie on a straight line.

One angle is 81°

The other three angles are equal.

What size are the other three angles?

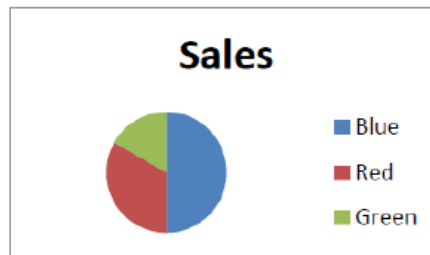
Draw a diagram to prove your answer.



Rachel says that it's not possible to calculate all of the missing angles.

Do you agree? Explain why.

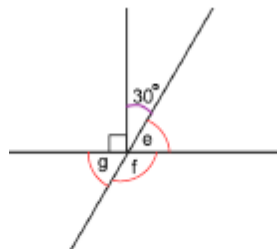
Here is a pie chart showing the colour of cars sold by a car dealer.



The number of blue cars sold is equal to the total number of red and green cars sold.

The number of red cars sold is twice the number of green cars sold.

Work out the inside angle of each section of the pie chart.



Darren says that angle g is equal to 30° because vertically opposite angles are equal.

Do you agree? Explain your answer. If you disagree, work out the value of g.

Convince me

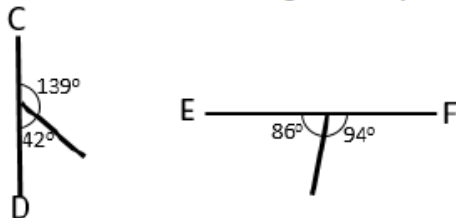


One angle at the point where the diagonals of a rectangle meet is 36 degrees.

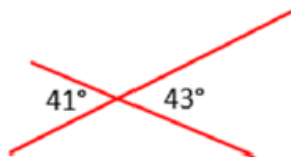
What could the other angles be?

Convince me

- Are these line straight? Explain.



- Is this diagram correct?



Explain your reasoning.

Five equal angles all meet around a point.

What is the size of each angle?

Explain how you know.

Four angles lie on a straight line.

One angle is 81°

The other three angles are equal.

What size are the other three angles?

Draw a diagram to prove your answer.

Problem Solving

- Three angles are around a point. Angle B is 40° larger than angle A. Angle A is 3 times the size of angle C. What is the size of angle A?
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