Year 6

Number Awareness

Week 9

Numbers with many factors

Some numbers have LOADS of factors

Factors of 36

1×36

2×18

$3 \times \ldots$

$\ldots$

Number of factors: NINE

Predict which number has the most factors

Factors of 60

1×360

$2 \times \ldots$

$\ldots$

Number of factors: ?

Use a calculator to check you have found them all

Factors of 100

1×100

$\ldots$

$\ldots$

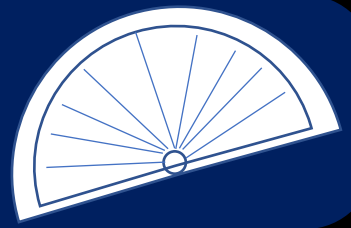
Number of factors: ?

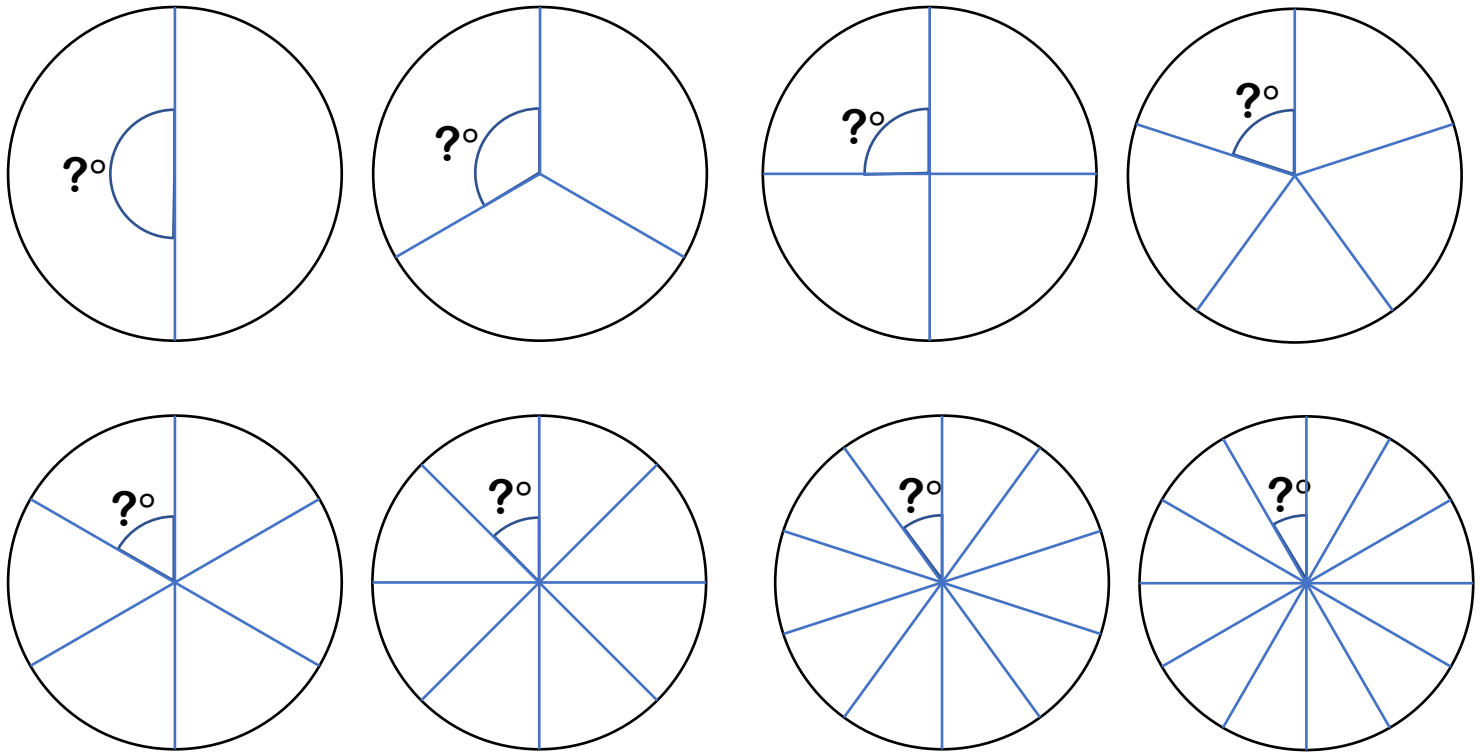
Which of these numbers do you think is most important for real life?

Why did we choose 360?

Work out the angles!

Do you need to measure?





Factors of 360

1×360

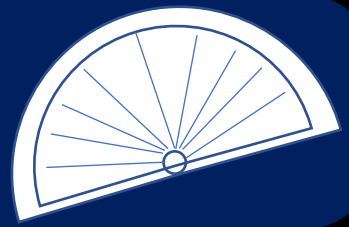
...

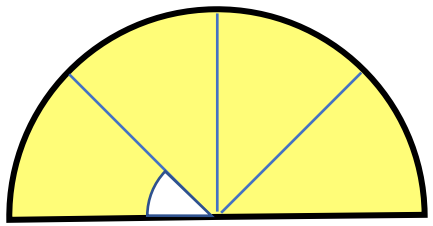
How many fractions of 360 can you find?

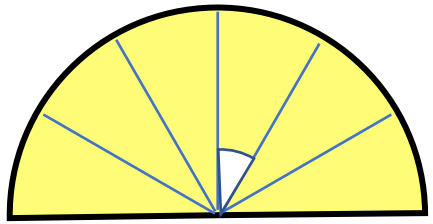
180

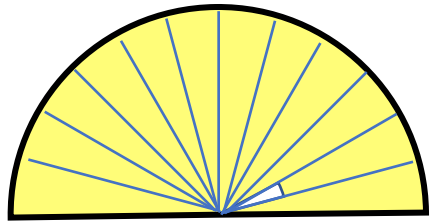
Work out the angles!

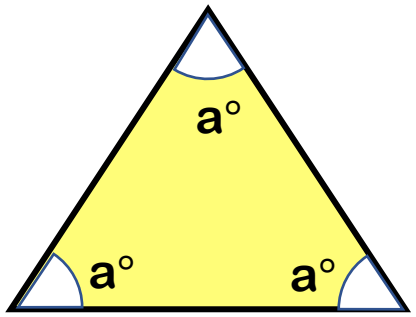
Do you need to measure?

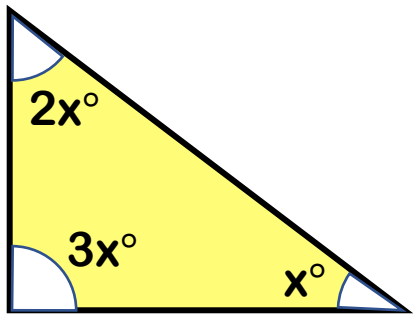


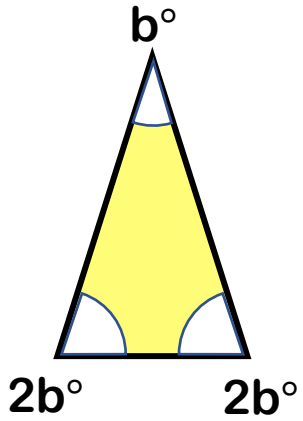












Factors of 180

1×180

...

How many fractions of 180 can you find?

Predict...

Factors of 45

1×45

...

Factors of 90

1×90

...

Factors of 270

1×270

...

Factors of 46

1×46

...

Factors of 92

1×92

...

Factors of 720

1×720

...

Predict which number has the most factors

Use a calculator to check you have found them all

Conjectures

72 has double the number of factors of 36

Some prime numbers are also square numbers

Numbers always have an even number of factors, because they are factor pairs

Decide if you agree or disagree.

Find examples and counter examples, or give reasons.

2 is a factor of all even numbers.
3 is a factor of all odd numbers

There are more whole number fractions of 60 than of 100