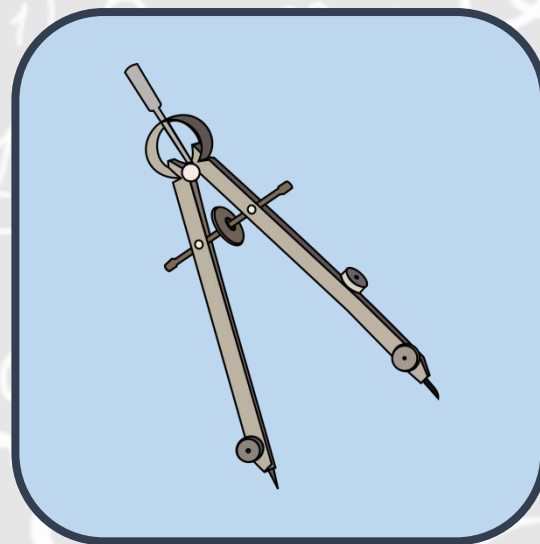
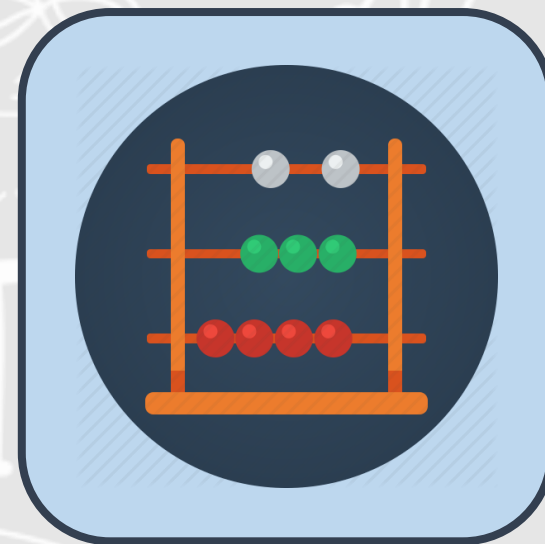


NUMERACY CHALLENGE



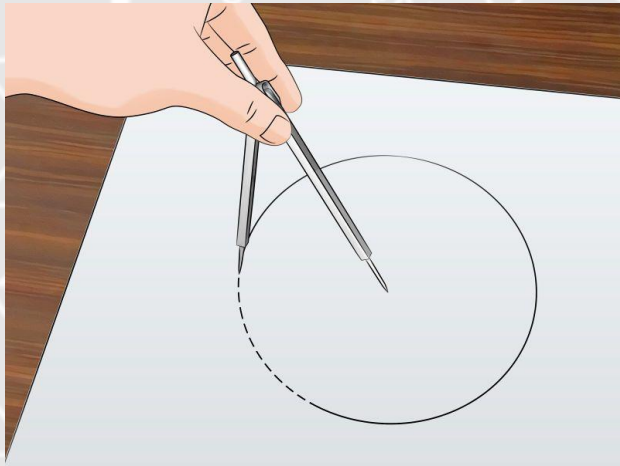
LEVEL 1



LEVEL 2

ACCESS MATHS

NUMERACY CHALLENGE



Because a circle has infinite points it makes it impossible to draw a perfect circle. Since the particles that we use to draw cause imperfections (such as a pencil) no one has ever seen a perfect circle!

We would need an infinite amount of infinitely small particles to draw a perfect circle!

Without a compass we seem to find drawing a circle a difficult task.

**Try and draw a 'perfect' freehand circle!
(or as close to perfect as we can imagine)**

**The best circles can be submitted to your
tutor, the best in each class will receive
house points and the best in the school
will win a prize!**

LEVEL 1

NUMERACY CHALLENGE



If a word or number is the same when it is read forwards as it is backwards then it is called a palindrome.

A good one is “Never Odd Or Even”. Although, every number is classified as one or the other so it makes no sense. But then, palindromes are not designed to instruct, but to amuse.

Can you think of one of your own?

You start with a 2-digit number.

When you reverse the digits, you get a **different** 2-digit number. You subtract the smaller number from the larger number to get the difference between them.

For example:

If you start with 81, you then reverse it to get 18.

$$81 - 18 = 63.$$

If you'd started with 28, you'd have got $82 - 28 = 54$.

What is the smallest difference you can get?

NUMERACY CHALLENGE LEVEL 1

**Try and draw a 'perfect' freehand
circle! (or as close to perfect as we can
imagine)**

NUMERACY CHALLENGE LEVEL 1

**Try and draw a 'perfect' freehand
circle! (or as close to perfect as we can
imagine)**

NUMERACY CHALLENGE LEVEL 2

You start with a 2-digit number.

When you reverse the digits, you get a **different** 2-digit number.

You subtract the smaller number from the larger number to get the difference between them.

For example:

If you start with 81, you then reverse it to get 18.

$$81 - 18 = 63.$$

If you'd started with 28, you'd have got $82 - 28 = 54$.

What is the smallest difference you can get?

NUMERACY CHALLENGE LEVEL 2

You start with a 2-digit number.

When you reverse the digits, you get a **different** 2-digit number.

You subtract the smaller number from the larger number to get the difference between them.

For example:

If you start with 81, you then reverse it to get 18.

$$81 - 18 = 63.$$

If you'd started with 28, you'd have got $82 - 28 = 54$.

What is the smallest difference you can get?

LEVEL 1

Please submit the best freehand circles to me!

Please award house points to the best ones in your class.

There will be a prize for the best circle so please keep hold of any that are particularly good!!

LEVEL 2

I make it 9

(various options, such as 32-23, or 54-45).

The only way to get less would be if the digits were the same, although it states they must reverse to give a different number, so this can't happen.

An extension if anyone is particularly keen on this is to pose the question:

“Can you show why the difference is always a multiple of 9....?”