



Pi Scarf

Skill and Experience ● ○ ○ ○ ○

An easy project for someone who can do basic crochet, and an excellent first project for someone who has only just learnt. You need to be able to do what is called treble crochet in the UK and double crochet in the US.

How it relates to maths

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There are some numbers which people just recognise. What do you immediately think when you see the number

3.141168665... ?

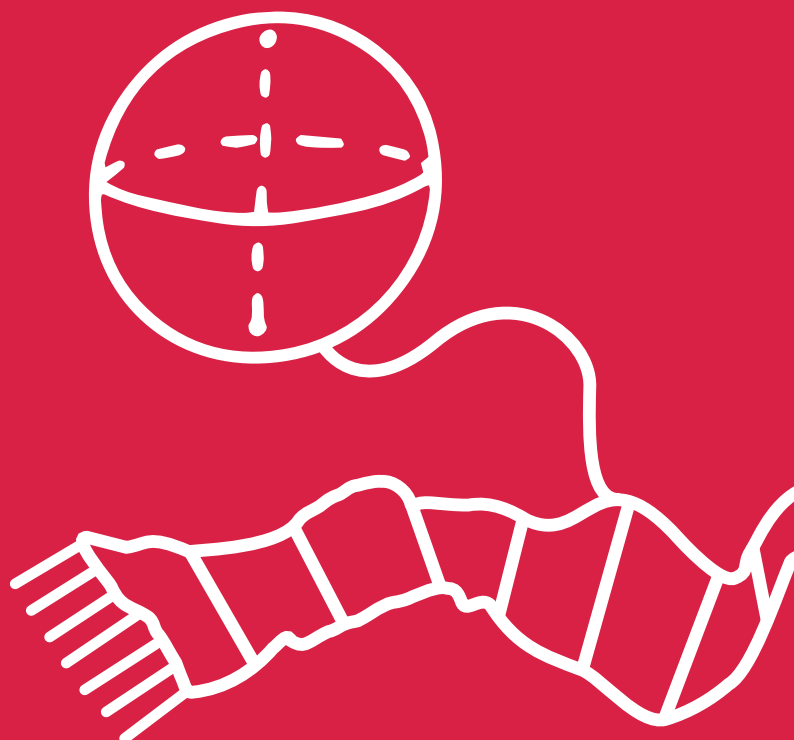
.....

Most people will say "pi", some will just stare blankly at it, and some will say, "no that's not pi, it just has the same first four digits as pi". Actually it is the cube root of 961 divided by pi, my point is that people recognise the 3.14 shape and many people who love their numbers know far more than the first three digits. If you are one of those who realised that that number is NOT pi, you will probably love this scarf.

Pi is an irrational number: the decimal places go on and on for ever without any repeating patten. Pi is also a transcendental number: there is no finite polynomial equation with integer coefficients where pi is the solution. (That means you can never find an equation such as $5x^3 - 2x^2 + 3x + 7 = 0$ which is true when $x = \pi$).

You can get lots of t-shirts with pi designs, but this scarf is a more subtle way of declaring your love of the number.

It is simply a scarf of alternating colours coded to scream PI to anyone who notices things. Because pi is irrational, it can be as long as you like. If you feel a pi scarf is a bit too obvious, you could make a $\sqrt{2}$ scarf, an e scarf or a τ scarf and see if anybody notices.



What you'll need



200g each of two contrasting coloured double knitting yarn



A small ball of white double knitting yarn



A 4mm crochet hook



Scissors



A tapestry, darning or wool needle

Step by Step Instructions

- 1** Measure off 12 metres of each of your two main colours and wind the yarn into two small balls. Set these aside. They will be your fringe at one end of the scarf when you finish.

- 2** Find a piece of paper and write down the digits of pi so that you can cross them off as you crochet them. The first few digits are:

31415926535897932384626433832795028841971693993
7510582097494459230781640628620899862803482534



- 3** Make a slip knot with the first coloured yarn then a chain of 41 stitches. Turn and start working treble stitch in the next but one from the loop the hook is in, so that you make 40 stitches. Work three rows in the first colour. Cross off the number three on your list. Snip off the first colour, leaving about 6cm to sew in later.

- 4** When you come to a zero, work a row in white yarn, then continue in the colour you used before the white yarn (so there are zero rows of the second colour at that stage!).

The next digit is a 1, so crochet one row in your second colour.

The next digit is a 4, so crochet four rows in your first colour.

Keep going, alternating between the colours and crossing off the digits as you crochet them. Stop when you think the scarf is long enough or you run out of yarn.

- 5** Sew in all the ends.

- 6** When you have finished the main bit of the scarf, find the two lengths of 12 metres you put to one side. Cut these into 40 lengths of 30cm.

For each of the 40 stitches in the final row of your scarf, select one cut piece of each colour.



Fold the two of them together in half and thread them through a stitch in the final row.



Pull it about halfway through the stitch, so you have a big loop, and pull the ends through the loop and tighten. Do this for all 40 stitches. (The fringe represents “...” as the number goes on to infinity)

Quick Tips



You don't have to start with a 41 stitch chain. You could make the first row be a chainless foundation row. You can learn how to do this on YouTube. Search for



“**crochet chainless foundation**”

Remember that what is called treble in the UK is called double in the US, and most crochet tutorials seem to be made in the US.

It is a good idea to count how many stitches you have in the row before snipping off a colour. Do you still have 40 stitches? If not, you can undo a few rows and sort it out.

If your edges are rather messy or have big holes, search on YouTube for



“**crochet straight edges**”

There are various methods. See which one makes sense to you.

If you have difficulty changing colour, search for



“**double crochet changing colour**”

I use a simple change over like the one shown here:



[How To Change Color In Double Crochet - YouTube](#)

