



$$x_{n+1} = \frac{1}{2x_n^2} + 1$$

Start with  $x_1 = -1$

Which of these is  $x_2$ ?

A

B

C

D

$$-\frac{1}{2}$$

$$\frac{1}{2}$$

$$\frac{1}{4}$$

$$1\frac{1}{2}$$

Copyright © AQA and its licensors. All rights reserved.

Your answer:

A B C D

Try the question online:



Try the quiz online:



I think this is the answer because...

Why might students choose each of the other 3 answers?

What other incorrect answer would you add to this question and why?

This question is proudly brought to you by Diagnostic Questions and Mr Barton Maths.

For an online video discussion of the answer and data on how many people around the world get it right, just go to [www.mrbartonmaths.com/students/gcse/question-of-the-week](http://www.mrbartonmaths.com/students/gcse/question-of-the-week)