

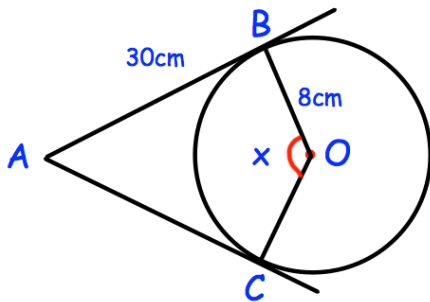


A recipe for a drink says

“mix 2 parts orange juice with 7 parts lemonade.”

Victoria has 100ml of orange juice and 300ml of lemonade.

What is the maximum amount of the drink that she can make?



Find x

Find the coordinates where the line $y = 8x - 15$ and the curve $y = x^2$ meet.

Write 1008 as a product of prime factors.

Express your answer in index form.

Hence find the **lowest** whole positive number by which 1008 would need to be multiplied by to give a square number.