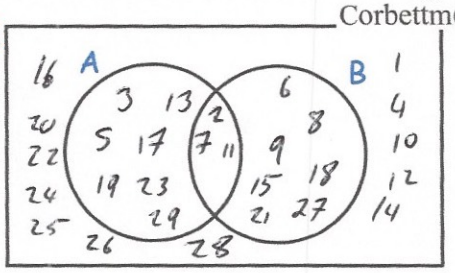
Name: _____ 5-a-day Higher Plus

19th June

Corbettmaths

ξ = {positive integers under 30}
A = {primes under 30}
B = {2, 6, 7, 8, 9, 11, 15, 18, 21, 27}



Find $P(A \cap B)$

$\frac{3}{29}$

Find $P(A \mid B)$

$\frac{3}{10}$

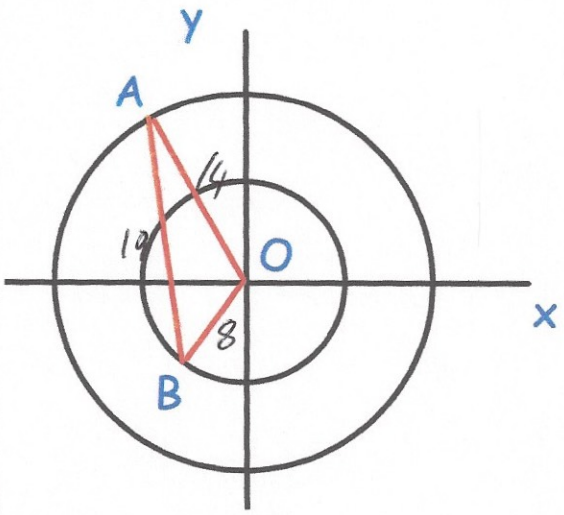
Given

$y = \frac{4\sqrt{7}}{3}$

Write an expression for y^3

$\frac{4\sqrt{7}}{3} \times \frac{4\sqrt{7}}{3} \times \frac{4\sqrt{7}}{3} = \frac{64 \times 7 \times \sqrt{7}}{27}$

$\frac{448\sqrt{7}}{27}$



A is a point on a circle.
B is a point on another circle with equation $x^2 + y^2 = 64$

radius of the smaller circle : radius of the large circle is 4 : 7

AB = 19

Work out the size of angle AOB

$\cos AOB = \frac{14^2 + 8^2 - 19^2}{2 \times 14 \times 8}$

$\cos AOB = -\frac{101}{224}$

$AOB = 116.8°$