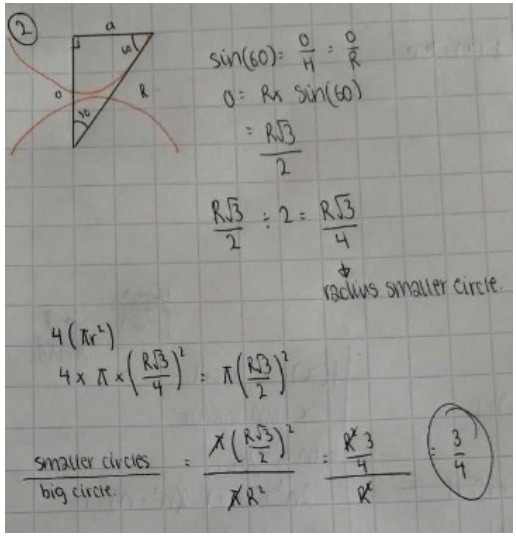
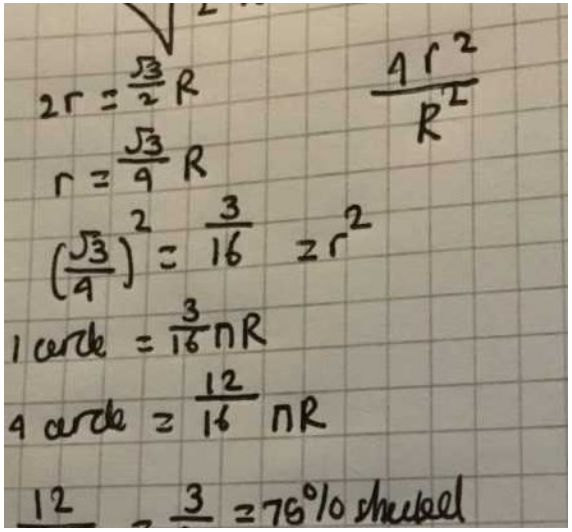
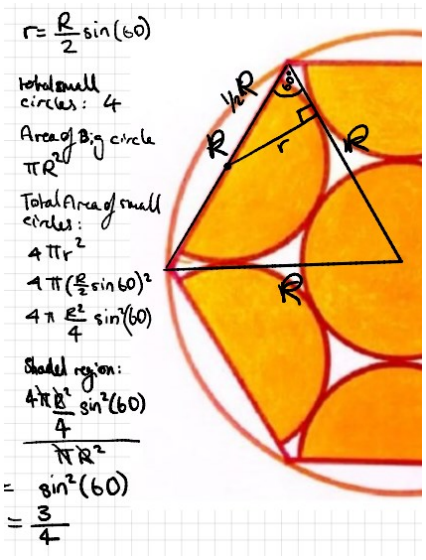
SAK Tutor Base—Louise (Y11)



HAB Tutor Base—Rajveer (Y9)



KC Tutor Base—Armaan (Y12)



KRB Tutor Base—Sam (Y12)

Looking at the sector marked in RED PEN

The sector side length is R - the radius of the larger circle

The angle is 60° as it is 1 section of a hexagon.

From the edge of the hexagon to the centre is 2r where "r" is the radius of a small circle

This length can be worked out by using the trigonometry identity triangle. R is the hypotenu: the adjacent side so:

=2r

= 2r

/ 4)

e shaded area in the segment = (1/6 + ½) * (Area of small circle)

e shaded area in the segment = (2/3) * (πr²)

gment = 1/6 * Area of large circle

gment = 1/6 * πR²

hat is shaded = Area of the shaded area in the segment / Area of segment

hat is shaded = [(2/3) * (πr²)] / [1/6 * πR²]

hat is shaded = [(2/3) * r²] / [1/6 * R²]

hat is shaded = 4r² / R²

hat is shaded = 4 [R(√3 / 4)]² / R²

hat is shaded = 4 [3R² / 4²] / R²

hat is shaded = [3R² / 4] / R²

hat is shaded = 3 / 4