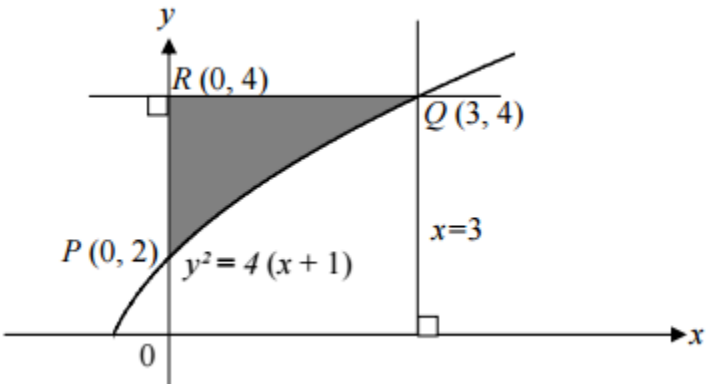
Questions

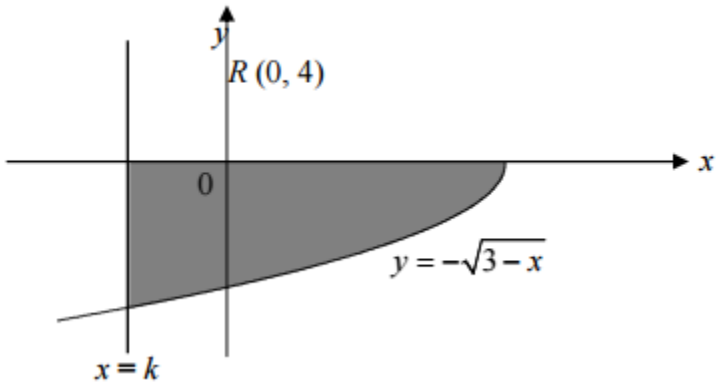
Question 1



The curve is $y = (x-2)^2$

1. Find the area of the shaded region?
2. Find the volume of the shaded region when it is revolves 360 degrees about x axis

Question 2



The graph shows the equation $y = -\sqrt{3-x}$. When the shaded region revolves around the x axis it yield $12\frac{1}{2}\pi\ unit^{3}$. Find the value of k

SPM FREAKS

SPM 2003- Paper 2 :Question 9 (b)

Diagram 3 shows a curve $x = y^2 - 1$ which intersects the straight line $3y = 2x$ at point A.

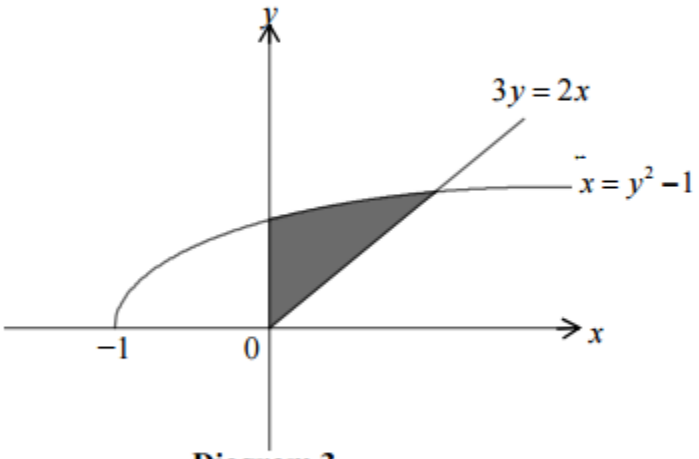


Diagram 3

Calculate the volume generated when the shaded region is involved 360° about the y-axis.
[6 *marks*]

SPM 2004- Paper 2 :Question 10

Diagram 5 shows part of the curve $y = \frac{3}{(2x-1)^2}$ which passes through A(1, 3).

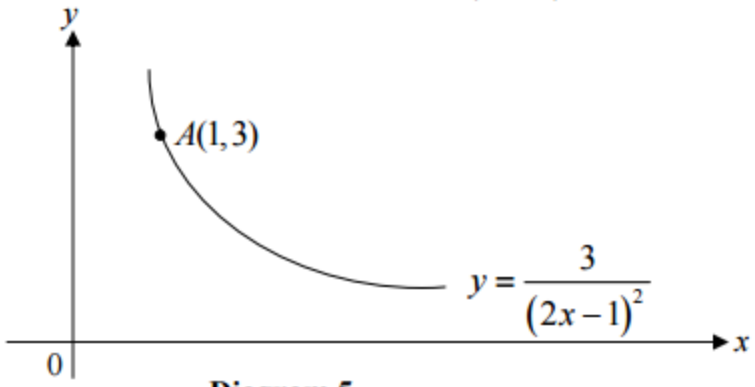


Diagram 5

a) Find the equation of the tangent to the curve at the point A.

[4 *marks*]

b) A region is bounded by the curve, the x-axis and the straight lines $x=2$ and $x= 3$.

i) Find the area of the region.

ii) The region is revolved through 360° about the x-axis.
Find the volume generated, in terms of π .

[6 *marks*]

SPM 2005- Paper 2 :Question 10

In Diagram 4, the straight line PQ is normal to the curve $y = \frac{x^2}{2} + 1$ at A(2, 3). The straight line AR is parallel to the y-axis.

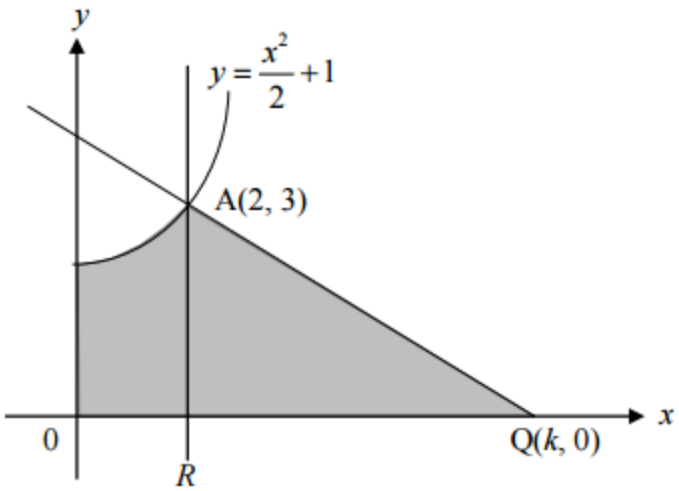


Diagram 4

Find

(a) the value of k, [3 *marks*]

(b) the area of the shaded region, [4 *marks*]

(c) the volume generated, in terms of π, when the region bounded by the curve, the y-axis and the straight line $y = 3$ is revolved through 360° about y-axis. [3 *marks*]