



where students come first!



Year 11- Mathematics Advanced

Introduction to trigonometric functions

Trigonometric Functions Exam

/23

1. (1 marks)

Evaluate $\lim_{x \rightarrow 0} \frac{\sin x}{2x}$

2. (2 marks)

Evaluate $\lim_{x \rightarrow 0} \frac{\tan 3x}{2x}$

3. (2 marks)

Evaluate $\lim_{x \rightarrow 0} \frac{\sin(\frac{3x}{2})}{6x}$

4. (3 marks)

Sketch $y = 2 \cos 1/2x$

5. (3 marks)

Sketch $y = 4 \tan 4x$

6. (3 marks)

Sketch $y = 3 \sec 2x$

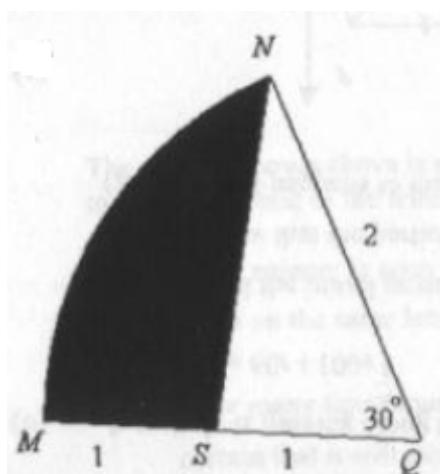
7. (2 marks)

Find $d/dx \cos x \sin x$

8. (2 marks)

Evaluate $\int_0^{\frac{\pi}{4}} \sec^2 4x dx$

9. (3 marks)



Calculate the exact length of NS and Find the area of the sector and arc length.

10. (2 marks)

Find $\int \tan x dx$