

Paper Reference 9FM0/4A
Pearson Edexcel
Level 3 GCE

Further Mathematics
Advanced
PAPER 4A: Further Pure Mathematics 2

Monday 24 June 2024 – Afternoon

Diagram Booklet

THIS DIAGRAM BOOKLET **MUST** BE RETURNED WITH THE
ANSWER BOOKLET AT THE END OF THE EXAMINATION.

In the boxes below, write your name, centre number and candidate number.

Surname					
Other names					
Centre Number					
Candidate Number					

Contents

Page

3 Question 8

4 Question 8(b)

Question 8

Diagram 1

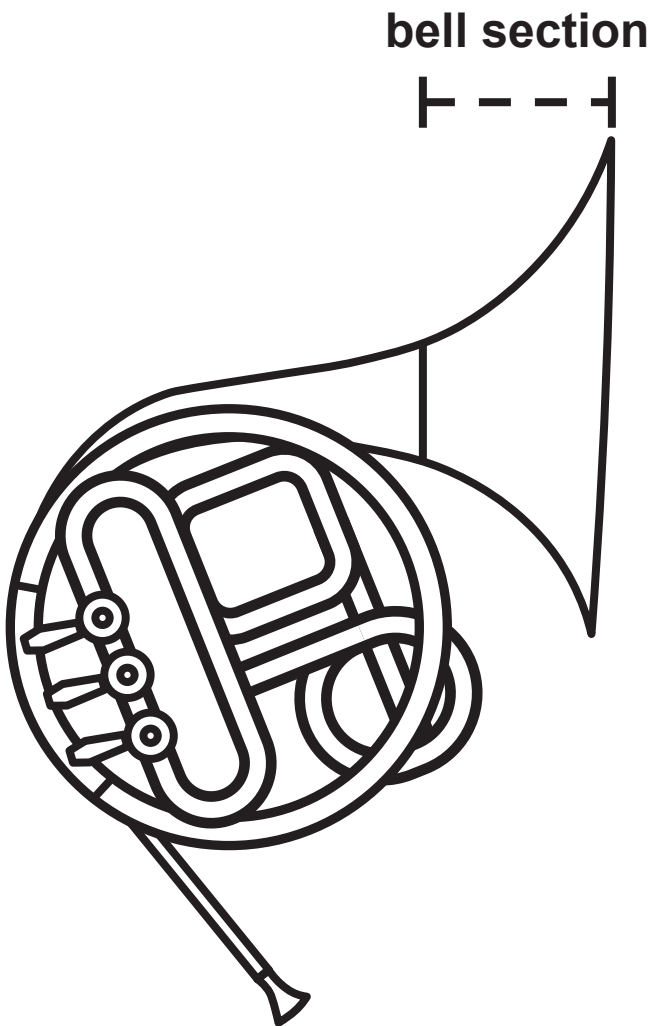
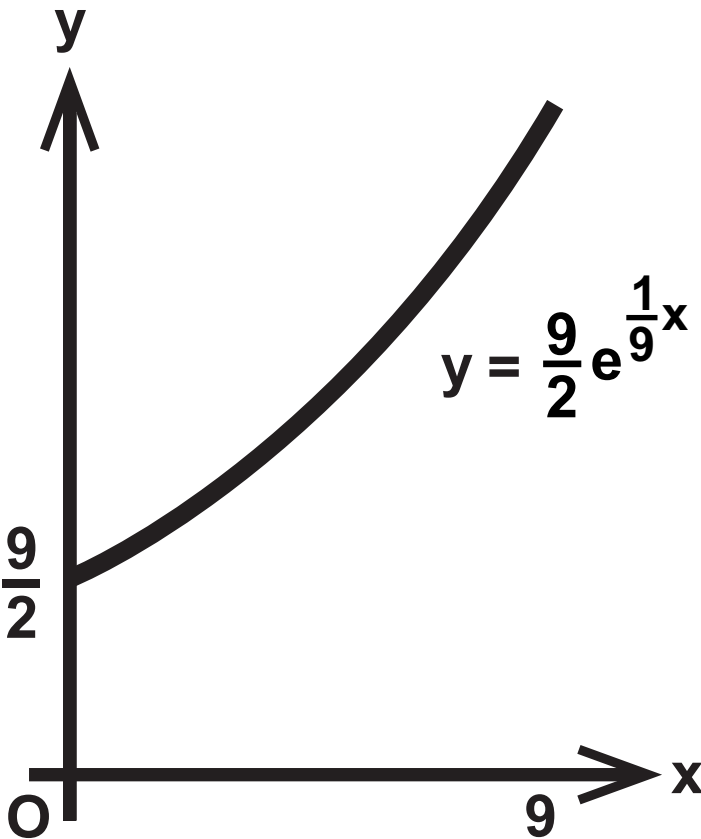


Diagram 2



Question 8(b)

Use the substitution $u = e^{\frac{1}{9}x}$ to show that

$$\int_0^9 e^{\frac{1}{9}x} \sqrt{4 + e^{\frac{2}{9}x}} \, dx = 9 \int_a^b \frac{2u + u^3}{\sqrt{4u^2 + u^4}} \, du + 18 \int_a^b \frac{1}{\sqrt{4 + u^2}} \, du$$

where a and b are constants to be determined.