**[Braille page 1]** X844/75/01 PRINT COPY BRAILLE

N5

National Qualifications

2026

Applications of Mathematics

Paper 1 (Non-calculator)

Friday, 15 May

Formulae List

**[Braille page 2]** FORMULAE LIST

Circumference of a circle:

$C = \pi d$

Area of a circle:

$A = \pi r^2$

Theorem of Pythagoras: Refer to diagram sheet for representation of triangle conforming to

$a^2+b^2 = c^2$

Volume of a cylinder:

$V = \pi r^2 h$

Volume of a prism:

$V = Ah$

Volume of a cone:

$V = \frac{1}{3}\pi r^2 h$

Volume of a sphere:

$$V = \frac{4}{3}\pi r^3$$

Standard deviation:

$$s = \sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$$

or $$s = \sqrt{\frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1}}$$, where $n$ is the sample size.

Gradient: Refer to diagram sheet for representation of a gradient.

$$\text{gradient} = \frac{\text{vertical height}}{\text{horizontal distance}}$$