

N5

National Qualifications

2023

Applications of Mathematics

Paper 1

Thursday, 4 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:

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

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

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

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

[End of Formulae List]