N5

National Qualifications

2022

Applications of Mathematics

Paper 1

Friday, 6 May

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: $V = 4/3 (\pi r^2)$

Standard deviation: $S = \sqrt{\dfrac{\Sigma(x - \bar{x})^2}{n-1}}$

or

$$S = \sqrt{\dfrac{\Sigma x^2 - \dfrac{(\Sigma x)^2}{n}}{n-1}}$$

where n is the sample size.

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

gradient = vertical height/horizontal distance