

N5

National Qualifications

2022

Mathematics

Paper 1

Wednesday, 4 May

Formulae List

**[Braille Page 2] FORMULAE LIST**

The roots of

$$ax^2 + bx + c = 0 \text{ are } x = \left( -b \pm \sqrt{b^2 - 4ac} \right) / 2a$$

Sine rule:  $a/\sin A = b/\sin B = c/\sin C$

Cosine rule:  $a^2 = b^2 + c^2 - 2bc \cos A$

or

$$\cos A = (b^2 + c^2 - a^2) / 2bc$$

Area of a triangle:  $A = \frac{1}{2} ab \sin C$

Volume of a sphere:  $V = \frac{4}{3} (\pi r^3)$

Volume of a cone:  $V = \frac{1}{3} (\pi r^2 h)$

Volume of a pyramid:  $V = \frac{1}{3} (Ah)$

Standard deviation:  $s = \sqrt{(\sum(x - \bar{x})^2 / (n - 1))}$

or

$$s = \sqrt{((\sum x^2 - ((\sum x)^2 / n)) / (n - 1))},$$

where n is the sample size.

[End of Formulae List]