

May–June 2025 Assessment Window

Syllabus
reference

7M20

Extended Mathematics Certificate Formulae Sheet

You are not permitted to take this notice into the examination.
A version of this equation list will be included with the May–June 2025
question papers. This document is valid if downloaded from the [Pearson
Qualifications website](#).

Instructions

- Please ensure that you have read this aid before the examination.

Information

- A formula sheet will be provided for Level 2 Extended Mathematics Certificate students.
- This exam aid provides students with additional exam formulae which they may refer to in their examinations.
- Please note, a copy of this exam aid will be made available to all students on the day of the examination as an insert in the question paper.
- There are no restrictions on who can use this aid.
- Students and teachers can discuss this exam aid.
- This document has 2 pages.

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Level 2 Extended Mathematics Certificate Formulae Sheet

Perimeter, area and volume

Where a and b are the lengths of the parallel sides and h is their perpendicular separation:

$$\text{Area of a trapezium} = \frac{1}{2}(a + b)h$$

Volume of a prism = area of cross section \times length

Where r is the radius and d is the diameter:

$$\text{Circumference of a circle} = 2\pi r = \pi d$$

$$\text{Area of a circle} = \pi r^2$$

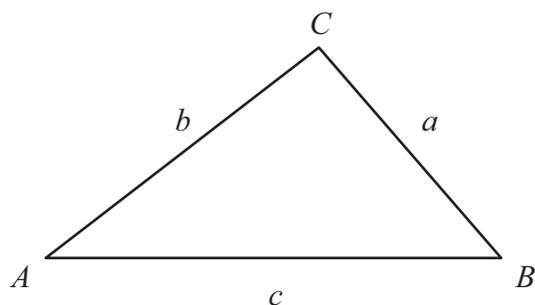
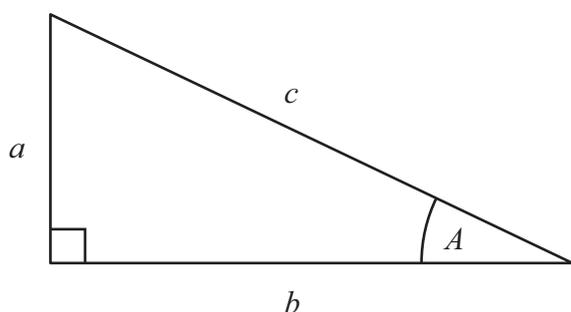
Quadratic formula

The solution of $ax^2 + bx + c = 0$

Where $a \neq 0$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Pythagoras' Theorem and Trigonometry



In any right-angled triangle where a , b and c are the length of the sides and c is the hypotenuse:

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

In any right-angled triangle ABC where a , b and c are the length of the sides and c is the hypotenuse:

$$\sin A = \frac{a}{c} \quad \cos A = \frac{b}{c} \quad \tan A = \frac{a}{b}$$

In any triangle ABC where a , b and c are the length of the sides:

$$\text{sine rule: } \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\text{cosine rule: } a^2 = b^2 + c^2 - 2bc \cos A$$

$$\text{Area of triangle} = \frac{1}{2} ab \sin C$$

Probability

Where $P(A)$ is the probability of outcome A and $P(B)$ is the probability of outcome B :

$$P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$$

$$P(A \text{ and } B) = P(A \text{ given } B) P(B)$$

Coordinate Geometry

Equation of a straight line passing through (x_1, y_1) with gradient m $y - y_1 = m(x - x_1)$

The general equation of a circle, centre (a, b) , radius r $(x - a)^2 + (y - b)^2 = r^2$

END OF FORMULAE SHEET