

Syllabus reference 1MA1/3F
Pearson Edexcel GCSE (9–1)
Mathematics

Mathematics
PAPER 3 (Calculator)
Foundation Tier

Wednesday 14 June 2023 – Morning

Foundation Tier

Formulae Sheet

**DO NOT RETURN THIS
FORMULAE SHEET WITH THE
QUESTION PAPER.**

Foundation Tier 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

(continued on the next page)

Turn over

Foundation Tier Formulae Sheet

Perimeter, area and volume continued.

Where r is the radius and d is the diameter:

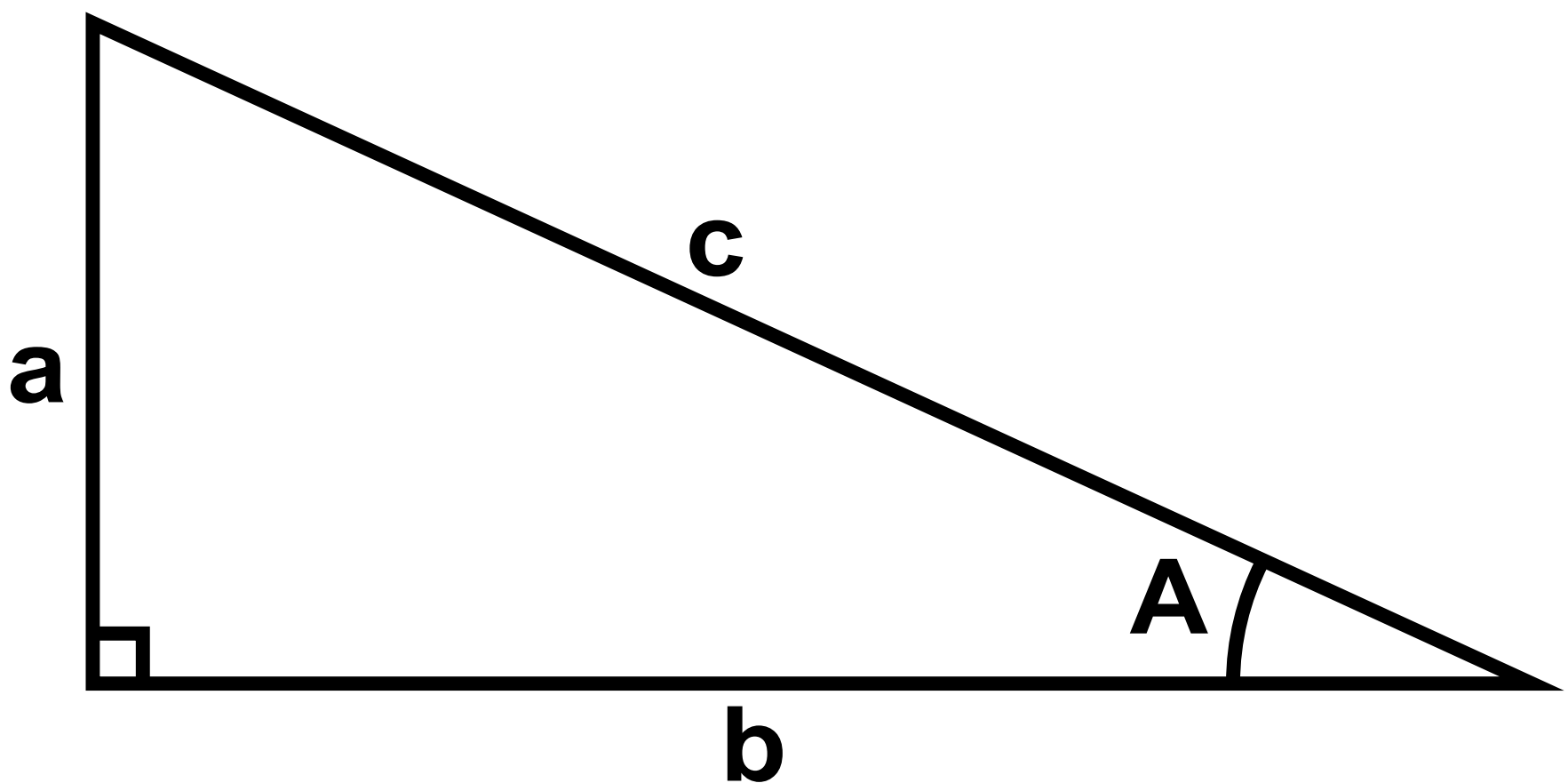
Circumference of a circle = $2\pi r = \pi d$

Area of a circle = πr^2

Turn over

Foundation Tier Formulae Sheet

Pythagoras' Theorem and Trigonometry



(continued on the next page)

Turn over

Foundation Tier Formulae Sheet

Pythagoras' Theorem and Trigonometry continued.

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:

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

Turn over

Foundation Tier Formulae Sheet

Compound Interest

Where **P** is the principal amount, **r** is the interest rate over a given period and **n** is number of times that the interest is compounded:

$$\text{Total accrued} = P \left(1 + \frac{r}{100} \right)^n$$

Turn over

Foundation Tier Formulae Sheet

Probability

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

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

END OF EXAM AID
