

Facts to Remember

Unit 1 $a^n = a \times a \times a \times \dots \times a$ (n times)

$$a^1 = a$$

$$a^0 = 1$$

$$a^n \times a^m = a^{n+m}$$

$$a^n \div a^m = a^{n-m}$$

$$(a^n)^m = a^{nm}$$

Standard form $A \times 10^n$ where $1 \leq A < 10$, n an integer.

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Unit 2 $(-a) \times b = -ab$

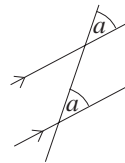
$$(-a) \times (-b) = ab$$

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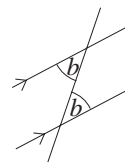
Unit 3 The sum of interior angles in a triangle is 180° .

The sum of interior angles in a quadrilateral is 360° .

Corresponding angles are equal,
shown as (a) in diagram.



Alternate angles are equal,
shown as (b) in diagram.



Supplementary angles add up to 180° ,
shown as (c) and (d) in diagram.



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Angle around a complete circle is 360° .

Angle around a point on a straight line is 180° .

Bearings { are always measured clockwise from North.
are expressed as 3 digits.

The angle on the perimeter subtended from a diameter
of a circle is 90° .

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- Unit 4** Pythagoras' Theorem: $a^2 + b^2 = c^2$
- $$\sin x = \frac{\text{opp}}{\text{hyp}}, \quad \cos x = \frac{\text{adj}}{\text{hyp}}, \quad \tan x = \frac{\text{opp}}{\text{adj}}$$
- Unit 5** Sum of all probabilities = 1.
- $$p(\text{event occurring}) + p(\text{event not occurring}) = 1.$$
- If there are n equally likely outcomes,
then $p(\text{particular outcome}) = \frac{1}{n}$.
- If events A and B are independent,
$$p(\text{A and B}) = p(\text{A}) \times p(\text{B}).$$
- If events A and B are mutually exclusive,
$$p(\text{A or B}) = p(\text{A}) + p(\text{B}).$$
- Unit 6** Multiplying by 10 moves the decimal point one to the right.
Dividing by 10 moves the decimal point one to the left.

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