NUMBERS AND SHAPES

HOW TO SAY

WHOLE NUMBERS

335	three hundred and thirty-five / three hundred thirty five (AmE)
1,700	seventeen hundred
1,721	seventeen hundred and twenty-one
1,000	a thousand / one thousand
3,000	three thousand
3,020	three thousand and twenty
3,722	three thousand, seven hundred and twenty-two
1,551,862	one million, five hundred and fifty-one thousand, eight hundred and sixty-two
734407	seven, three, double four, o, seven (telephone number, account number)
0	nought (BrE) / zero (AmE)

COMMON FRACTIONS

$\frac{1}{2}$	a half / one half
$\frac{1}{4}$	a quarter / one quarter
$\frac{1}{3}$	a third / one third
$\frac{1}{8}$	an eighth / one eighth
$\frac{3}{4}$	three-quarters / three fourths
$\frac{2}{3}$	two thirds
$\frac{3}{8}$	three eighths
$\frac{5}{7}$	five sevenths

$\frac{202}{561}$	two hundred and two over five hundred and sixty-one
$1\frac{1}{2}$	one and a half
$3\frac{2}{3}$	three and two thirds

DECIMAL FRACTIONS

0.3	nought point three / point three / zero point three (AmE)
2.201	two point two nought one / two point two zero one
3.15	three point one five
25.25	twenty five point two five

HOW TO READ

MATHEMATICAL SYMBOLS

x^2	x squared / x to the second power / x to the power of two
x^3	x cubed / x to the third power / x to the power of three
x^n	x to the power (of) n / x to the n
x^{n-1}	x to the power (of) n minus one / x to the n minus one
x^{-n}	x to the power (of) minus n / x to the minus n
$\sqrt{x}$	the square root of x
$\sqrt[3]{x}$	the cube root of x
$\sqrt[5]{x}$	the fifth root of x
$\sqrt[n]{x}$	the nth root of x
$x \neq 1$	x is not equal to 1
$x \approx 10$	x is approximately equal to 10
$x \to 0$	x tends to nought
$x \to \infty$	x tends to infinity
$x < 5$	x is less than five
$x > 5$	x is greater than five
$x \leq 10$	x is less than or equal to 10
$x \geq 10$	x is greater than or equal to 10
R_x	R subscript x, R sub x
16°	sixteen degrees
16°C	sixteen degrees centigrade / Celsius
25%	twenty-five per cent (Water consumption has risen by 10%.)

CALCULATIONS

Addition

$a + b = c$ — a plus b equals c

Subtraction

$a - b = c$ — a minus b equals c

Multiplication

$a \times b = c$ — a multipled by b equals c

Division

$a : b = c$ — a divided by b equals c

In conversational style with smaller numbers you can say:

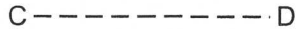
$6 + 5 = 11$	six and five is/ are eleven
$3 - 1 = 2$	one from three is/ leaves two
$3 \times 4 = 12$	three times four is twelve three fours are twelve
$12 : 4 = 3$	four into twelve is three

EQUATIONS

$(a-b)(a+b)=y$	a minus b in brackets multiplied by a plus b in brackets equals y
$a\,(8-b)=x$	a open brackets 8 minus b close brackets equals x
$\frac{15+(a-b)}{8\,a}=b$	15 plus a minus b in brackets all over 8 a equals b
$x\,[(a-b)(a+b)-8]=0$	x open square brackets a minus b in brackets multiplied by a plus b in brackets minus 8 close square brackets equals nought.

HOW TO DESCRIBE LINES

AB is a **solid** line.



CD is a **broken** line.

EF is a **dotted** line.

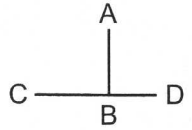
GH is a **wavy** line.

AB is a **horizontal** line.

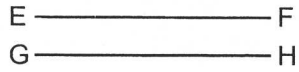
CD is a **vertical** line.

EF is a **diagonal** line.

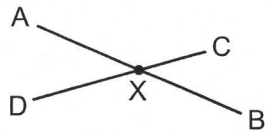
AB and CD are **straight** lines, EF is a **curved** line.



AB is **perpendicular** to CD.

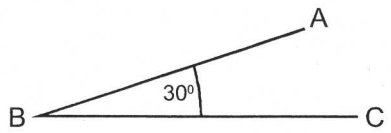


EF is **parallel** to GH.



AB and CD are **intersecting** lines. They **intersect** at X.

HOW TO DESCRIBE ANGLES



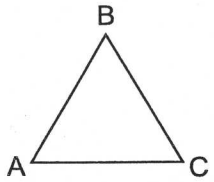
ABC is a thirty degree angle.

ABC is an angle of thirty degrees.
AB is at an angle of thirty degrees to BC.

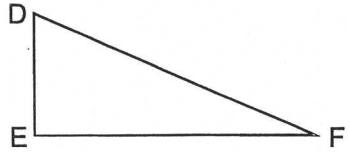
An angle of 90° is a **right** angle.
An angle of 180° is a **straight** angle.
An angle of 360° is a **full** angle.
An angle < 90° is an **acute** angle.
An angle > 90° but < 180° is an **obtuse** angle.
An angle >180° is called a **reflex** angle or an **external** angle.

HOW TO DESCRIBE SHAPES

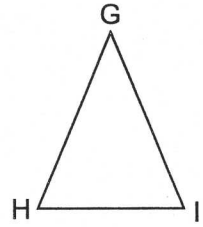
NOUN	ADJECTIVE
rectangle	rectangular
square	square
triangle	triangular
pentagon	pentagonal
circle	circular
semicircle	semicircular



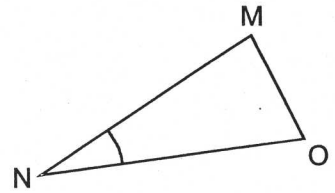
ABC is an **equilateral** triangle.



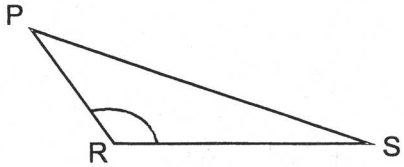
DEF is a **right-angled** triangle.



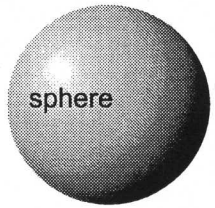
GHI is an **isosceles** triangle.



MNO is an **acute-angled** triangle.

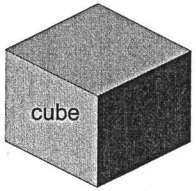


PRS is an **obtuse-angled** triangle

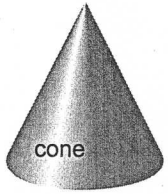


spherical

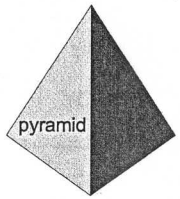
hemispherical



cubic

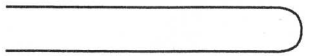


conical

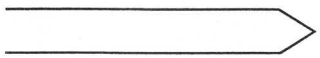


pyramidal

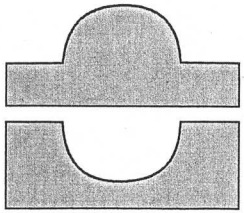
cylindrical



It is rounded at one end.



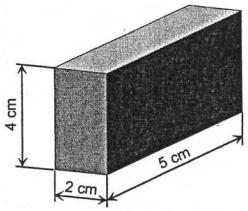
It is pointed at one end.



It is convex.

It is concave.

HOW TO DESCRIBE DIMENSIONS



The block has a height of 4 cm, a length of 5 cm and a width of 2 cm.

The height of the block is 4 cm, the length is 5 cm and the width is 2 cm.

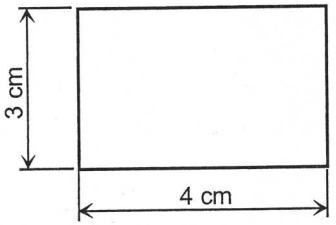
The block is 4 cm high, 5 cm long and 2 cm wide.

The block is 4 cm by 5 cm by 2 cm.

The volume of the block is 40 cu. cm.

How wide is the block?
What's the width of the block?

The rectangle is 4 cm long and 3 cm wide.
The rectangle is 4 cm by 3 cm.
The area of the rectangle is 12 sq. cm.



A circle has dimensions of:
a) diameter,
b) radius,
c) circumference.