12345678 ... Natural numbers (positive)
-5-4-3-2-1 Negative numbers
"minus five", "minus four"
-3-2-10123 Integers
$1 / 23 / 4{ }^{7} / 8 \quad$ Fractions (rational numbers) "a half", "three quarters", "seven eighths"
$5 / 9$ is 5 divided by 9.5 is the numerator of the fraction, and 9 is the denominator.
$9 / 5$ is the reciprocal of $5 / 9$. It is equal to $14 / 5$.
0.50 .750 .875 Decimals
"nought point five",
"nought point seven five"
0.3333333 Recurring decimal
"nought point three recurring"
3.14159265... $\pi$ is an irrational number because it cannot be represented as a fraction.
Addition: $\quad 12+3=15$
Twelve plus three equals fifteen.
Twelve and three makes fifteen.
Subtraction: $\quad 12-3=9$
Twelve minus three equals nine. $\quad \sqrt{ }=i$
Three from twelve leaves nine.

Multiplication: $12 \times 3=36$
Twelve times three equals thirty-six.
Three twelves are thirty-six.
Division:
$12 \div 3=4$
Twelve divided by three equals four.
Threes into twelve go four.
Powers:
$3^{2}=3 \times 3=9$
Three squared equals nine.
$3^{6}=3 \times 3 \times 3 \times 3 \times 3 \times 3=729$
Three to the power of six is seven hundred and twenty-nine.

Roots:
$\overline{9}=3$
The square root of nine is three.
${ }_{6}^{2} \sqrt{29}=3$
The sixth root of seven
hundred and twenty-nine is three.
$\overline{\boxed{L}}=1.4142 \ldots$
The square root of two is one point four one four... (irrational number)
The square root of minus one is an imaginary number.

plane (two dimensions) solid (three dimensions) regular polygons:

circle

equilateral triangle

square

pentagon

hexagon

## irregular polygons:


scalene triangle isosceles triangle

rectangle

parallelogram

trapezium

A Venn diagram represents sets:

$\varnothing \quad$ Null (empty) set
$\chi \in \mathrm{A} \quad \chi$ is a member of set A
$A \cap B \quad$ the intersection of $A$ and $B$
$A \cup B \quad$ the union of $A$ and $B$
$C \subset B \quad C$ is a subset of $B$

1 Label the diagram using the words from the box.
arc area chord circumference diameter radius tangent


## 2 Match the words to the definitions.

prime number
highest common factor

cube root of $y$$\quad$\begin{tabular}{ll}
a \& A flat two-dimensional surface. <br>
denominator \& The number that multiplied by itself, twice, gives $y$. <br>
c \& A quadrilateral with two parallel sides. <br>
d \& A number whose only factors are itself and 1. <br>
complementary set \& e <br>
trapezium \& The bottom part of a fraction, which cannot be 0. <br>
plane \& f <br>
ghe set of everything (in the domain) not in the first set. <br>

\& | The largest number by which both of two numbers can be |
| :--- |
| divided without a remainder. |

\end{tabular}

## 3 Circle the correct word.

1 Two to the potency/power/multiple of five is thirty-two.
2 A set that is contained within another set is called a subset/undersame/intersection.
3 An acute/obtuse/obvious angle is greater than 90 degrees and less than 180 degrees.
4 The figure ' 9 ' can be transformed into ' 6 ' by a process of reflection/iteration/rotation.
$55 / 4$ is the complement/inversion/reciprocal of $4 / 5$.
6 An isosceles/equilateral/angular triangle has just two equal sides and two equal angles.
7 Two lines are parallel/perpendicular/congruent if they meet at right-angles.

MATHEMATICS VOCABULARY

## Exercises

## ANSWER KEY

## Exercise 1

2 circumference 3 area 4 radius 5 tangent 6 arc

7 chord

## Exercise 2

## $2 \mathrm{~g} 3 \mathrm{~b} 4 \mathrm{e} 5 \mathrm{f} \quad 6 \mathrm{c} 7 \mathrm{a}$

## Exercise 3

2 subset 3 obtuse
4 rotation
5 reciprocal 6 isosceles
7 perpendicular

