

## Number

Numbers as Words	4
Ordering Numbers & Place Value	4
Special Numbers	5
Non-Calculator Calculations	6
Multiples & Factors	8
LCM & HCF	8
Fractions	9
Decimals	12
Percentages	14
Ratio & Proportion	16
Money Problems	17
Powers & Roots	19
Prime Factorisation	20
Standard Index Form	21
Rounding & Estimating	21
Negative Numbers	23

## Algebra

Writing & Simplifying Expressions	25
Solving Equations	26
Substituting Into Formulae	28
Writing Formulae	30
Rearranging Formulae	30
Straight Line Graphs	31
Inequalities	33
Trial & Improvement	34
Expansion & Factorisation	35
Quadratic Graphs	36
Travel Graphs	38
Conversion Graphs	40
Recognising Graphs	41
Patterns & Sequences	42

## Shape, Space & Measures

Recognising Shapes	45
Nets, Plans & Elevations	47
Symmetry	51
Reading Scales	52
Metric & Imperial Units	53
Timetables	55
Perimeter & Area	56
Circles	59
Volume & Surface Area	61
Rounding Measures	65
Angles	65
Angles & Parallel Lines	67
Polygons	69
Pythagoras' Theorem	71
Coordinates	72
Similar Shapes	74
Scale Drawings & Bearings	75
Transformations	78
Speed & Density	81

## Handling Data

Mean, Median, Mode, Range	82
Two-Way Tables	84
Frequency Tables	84
Bar Charts	86
Pictograms	88
Frequency Diagrams	89
Stem & Leaf Diagrams	91
Pie Charts	92
Line Graphs	95
Scatter Graphs	97
Probability	99
Questionnaires	104

Answers	105
---------	-----

## ORDERING NUMBERS & PLACE VALUE

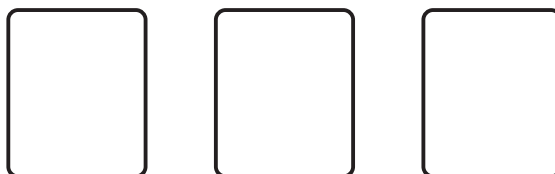
**N4 (a)** What is the value of the 5 in 19 256?

Answer ..... (1 mark)

**(b)** Janine has three numbered cards.

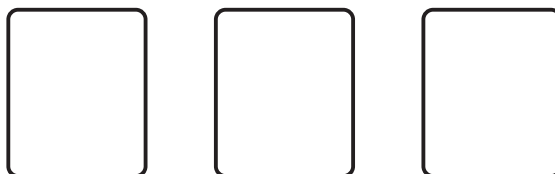


**(i)** Rearrange the cards to make the largest possible number.



(1 mark)

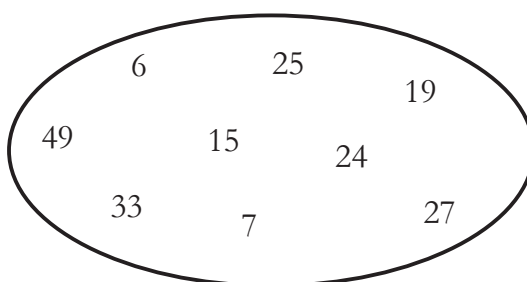
**(ii)** What is the smallest number Janine can make using all three cards?



(1 mark)

## SPECIAL NUMBERS

**N5** Choose from these numbers:



Write down all the:

**(a)** even numbers,

Answer ..... (2 marks)

**(b)** square numbers,

Answer ..... (2 marks)

**(c)** prime numbers.

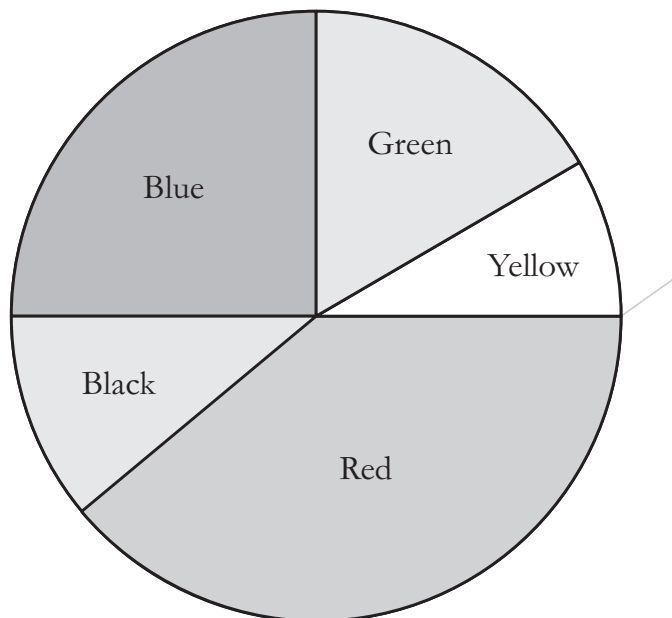
Answer ..... (2 marks)

# Handling Data

## PIE CHARTS



**H18** A mobile phone manufacturer makes covers in five colours. The pie chart shows the colour distribution of 900 covers sold.



(a) Measure the angle for yellow.

Answer ..... degrees (1 mark)

(b) What fraction of the covers sold were yellow?  
Write your fraction in its lowest terms.

.....

Answer ..... (1 mark)

(c) How many yellow covers were sold?

.....

.....

Answer ..... (2 marks)

(d) How many of the covers sold were red?

.....

.....

.....

.....

Answer ..... (4 marks)