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Q&A Booklet:
Key Facts to Memorise
Broad General Education Booklet 2

Ways of using this booklet:

1) Write the questions on cards with the answers on the back and **test yourself**.
2) **Work with a friend** who is also doing National 3 Applications to take turns reading a random question and answering.
3) **Ask a friend or family member** to test you by reading questions (on the left-hand side) to you.

The questions are on the left-hand side of each page and the answers are on the right.

Choosing the Sum	
1) What type of sum do you do when the question asks **how much is left**?	Take away
2) What type of sum do you do when the question asks you to **share equally**?	Divide
3) What two type of sums might you do if the question asks you to work out the **total**?	Add or multiply
4) What type of sum do you do if something **increases**?	Add
5) What type of sum do you do if something **decreases**?	Take away
6) What sum do you do to work out how many smaller things can **fit in** to something larger?	Divide

Fractions and Percentages	
7) How do you work out a fraction of an amount?	Divide by the bottom and multiply by the top
8) What sum do you do to work out $\frac{1}{2}$ (one half) of something?	Divide by 2
9) What sum do you do to work out $\frac{1}{4}$ (one quarter) of something?	Divide by 4
10) What sum do you do to work out $\frac{1}{5}$ (one fifth) of something?	Divide by 5
11) What sum do you do to work out $\frac{1}{3}$ (one third) of something?	Divide by 3
12) What sum do you do to work out **50%**?	Divide by 2 (or "half it")
13) What sum do you do to work out **10%**?	Divide by 10
14) What sum do you do to work out **20%**?	Divide by 5
15) What sum do you do to work out **25%**?	Divide by 4 (or "find a quarter of it")
16) What sum do you do to work out **75%**?	Divide by 4 and times by 3
17) How do you add two fractions?	Keep the numbers on the bottom the same, and add the numbers on the top.

Multiply and Divide	
18) What is the answer when you multiply any number by 1?	The same number
19) What is the answer when you multiply any number by 0?	0
20) What is 6 × 6?	36
21) What is 6 × 7?	42
22) What is 6 × 8?	48
23) What is 6 × 9?	54
24) What is 7 × 7?	49
25) What is 7 × 8?	56
26) What is 7 × 9?	63
27) What is 8 × 8?	64
28) What is 8 × 9?	72
29) What is 9 × 9?	81
30) What is 36 ÷ 6?	36
31) What is 42 ÷ 7?	6
32) What is 48 ÷ 8?	6
33) What is 54 ÷ 9?	6
34) What is 49 ÷ 7?	7
35) What is 56 ÷ 8?	7
36) What is 63 ÷ 9?	7
37) What is 64 ÷ 8?	8
38) What is 72 ÷ 9?	8
39) What is 81 ÷ 9?	9
40) What is a multiple?	A number which is in the times table of another number
41) What is a factor?	A number which divides into another number without a remainder
42) What sum do you have to do first: add, subtract or multiply?	Multiply
43) What sum do you have to do last: divide, multiply or add?	Add

Statistics	
44) If you are asked to draw a **frequency table**, what does this mean?	A tally chart
45) What two things do you need to remember when drawing a frequency table?	1) Three columns including tally and frequency 2) Headings for columns
46) What three things do you need to remember when drawing a bar chart?	1) Scale up the side with a label 2) Gaps between each bar 3) Each bar the same width
47) How do you find the **mean**?	• Add all the numbers together • Divide by how many numbers there are

Measurement	
48) How many **centimetres** are in a **metre**?	100
49) How many **metres** are in a **kilometre**?	1000
50) How many **millimetres** are in a **centimetre**?	10
51) How many **grams** are in a **kilogram**?	1000
52) How many **millilitres** are in a **litre**?	1000
53) How many **millilitres** are in a **centimetre cubed**?	1
54) What units are used for **temperature**?	Degrees C (or Degrees Celsius)
55) What units are used for measuring **angles**?	Degrees
56) Name any units that could be used to measure **weight**.	Any of these: Grams, Kilograms, Tonnes, Stone etc.
57) Name any units that could be used to measure **length**.	Any of these: Centimetres, Metres, Miles, Kilometres, Inches etc.
58) Name any units that could be used to measure **volume**.	Any of these: Litres, Millilitres, Centimetres cubed, Gallons etc.

Perimeter, Area Volume	
59) When do you use **squared units** e.g. centimetres squared (cm²) or metres squared (m²)?	When you are working out an area **Alternative answer:** when the formula begins "*A* ="
60) When do you use **cubed units** e.g. metres cubed (m³) or centimetres cubed (cm³)?	When you are working out a volume **Alternative answer:** when the formula begins "*V* ="
61) What is the formula for the volume of a **cuboid**?	Length times Breadth times Height **Alternative answer:** $V = LBH$
62) What is the formula for the area of a **rectangle**?	Length times Breadth **Alternative answer:** $A = LB$
63) What is the formula for the area of a **triangle**?	Half Base times Height **Alternative answer:** $A = \frac{BH}{2}$ **(A equals B H over 2)**
64) How do you find the **perimeter** of a shape?	Add all the lengths together

Time	
65) How many seconds are in a minute?	60
66) How many minutes are in an hour?	60
67) How many weeks are in a year?	52
68) How many days are in a normal year?	365
69) How many hours are in a day?	24

Direction and Scale	
70) From a scale drawing, what are the three steps to find the real-life length?	1) Measure with a ruler 2) Multiply by the number in the scale 3) Write units on the end of your answer

Probability	
71) What is the probability of something **impossible**?	Zero
72) What is the probability of something **certain**?	One **Alternative answer:** 100%

Money	
73) What type of sum do you do to work out a **discount**?	Take away
74) What does **income** mean?	The money you get in
75) What does **expenditure** mean?	The money you spend
76) How do you work out **Total Expenditure**?	Add all the numbers together
77) What sum do you do with income and expenditure to work out how much money is left over?	Income take away expenditure
78) What are **deductions** from pay?	Tax, National Insurance etc.
79) What does **gross pay** mean?	The amount you get paid before deductions are taken off
80) What does **net pay** mean?	The amount you get paid after deductions are taken off
81) How do you calculate **net pay**?	Take the Deductions away from the Net Pay

Shape	
82) How many sides does a **pentagon** have?	5
83) How many sides does a **hexagon** have?	6
84) How many sides does an **octagon** have?	8
85) What is special about an **equilateral** triangle?	All sides and angles are the same
86) What is special about an **isosceles** triangle?	Two sides and angles are the same
87) If you know the diameter of a circle, how do you find the radius?	Half it
88) If you know the radius of a circle, how do you find the diameter?	Double it

Angle	
89) How many degrees in a full turn?	360
90) How many degrees in a half turn?	180
91) How many degrees in a straight angle?	180
92) How many degrees in a right angle?	90
93) What do the three angles in a triangle always add up to?	180 degrees
94) What is the name of the type of angle that is less than 90 degrees?	Acute angle
95) What is the name of the type of angle that is bigger than a right angle and less than a straight angle?	Obtuse angle
96) What is the name of the type of angle that is bigger than a straight angle?	Reflex angle