## Non-Calculator Foundation + GCSE Revision

| Write $\frac{15}{45}$ in <br> simplest form. | How many metres are in <br> 5 kilometres? | Find the circumference. Give <br> your answer in terms of $\pi$. | Simplify $x^{4} \times x^{8}$. <br> Decrease $£ 500$ by $20 \%$. |
| :---: | :---: | :---: | :---: |
| Find the value of |  |  |  |
| $5^{2} \times 2^{3}$. | Calculate $\frac{1}{12} \div \frac{9}{4}$. | List the first 5 prime |  |
| numbers. |  |  |  |

Find the value of $y$.


| Multiply $2 \times 10^{5} \text { by } 7 \times 10^{8}$ <br> Give your answer in standard form. | Find angle a and give reasons. | Solve $15<3+6 x$. | If a man walks 1.3 km in 15 minutes, what is his average speed in km/h? |
| :---: | :---: | :---: | :---: |
| Translate the point $A$ by $\binom{3}{-2}$. Label the translated point $B$. |  | Name each type of sequence: <br> a) $1,1,2,3,5,8, \ldots$ <br> b) $3,7,11,15,19, \ldots$ | Find the length of the edge of a cube which has surface area $54 \mathrm{~cm}^{2}$. |
|  <br> What are the coordinates of $B$ ? | Factorise $x^{2}+9 x+8$ | c) $1,2,4,8,16,32, \ldots$ | Solve $x^{2}+6 x=0$. |

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Non-Calculator Foundation + GCSE Revision - ANSWERS
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| Write $\frac{15}{45}$ in simplest form. $\frac{1}{3}$ | How many metres are in 5 kilometres? <br> 5000m | Find the circumference. Give your answer in terms of $\pi$. <br> $16 \pi$ | Simplify $x^{4} \times x^{8}$. $x^{12}$ |
| :---: | :---: | :---: | :---: |
| Decrease $£ 500$ by $20 \%$. $£ 400$ | Find the value of $5^{2} \times 2^{3}$ $25 \times 8=200$ | Calculate $\frac{1}{12} \div \frac{9}{4}$. $\frac{1}{12} \times \frac{4}{9}=\frac{1}{27}$ | List the first 5 prime numbers. $2,3,5,7,11$ |
| Calculate $\frac{2}{5}+\frac{1}{4}$ $\frac{8}{20}+\frac{5}{20}=\frac{13}{20}$ | Find the value of $5+\sqrt{81} \times 4$ $5+9 \times 4=41$ | Write 100 as a product of prime factors in index form. $100=2^{2} \times 5^{2}$ | Solve $2 x+7=22 .$ $x=7.5$ |


| Find the value of $y$. | Expand $6 x(2 x+3)$. $12 x^{2}+18 x$ | Find the area. | Find the length w. |
| :---: | :---: | :---: | :---: |
|  $y=91$ | Ben and Tyrell share $£ 55$ in the ratio 2:3. How much does Tyrell get? $£ 33$ | $48 \mathrm{~cm}^{2}$ | Find the volume of a cylinder with radius 4 cm and height 10 cm . Give an exact answer. |
| Solve $5 x-4=3 x+12$ $x=8$ | Work out the interior angle of a regular octagon. $135^{\circ}$ | Expand and simplify $(x+2)(x+5)$ $x^{2}+7 x+10$ | $160 \pi \mathrm{~cm}^{2}$ |


| Factorise $5 x^{2}+20 x y$. $5 x(x+4 y)$ | Find the area. | Lucy flips two fair coins. What's the probability she gets two tails? $\frac{1}{4}$ | What's the gradient of the straight line with equation $y=5-2 x ?$ $-2$ |
| :---: | :---: | :---: | :---: |
| What type of correlation is shown here? <br> Beach Visitors | If $a=6$ and $b=4$, find: $-a-b=-10$ $-a+b=-2$ $a+(-b)=2$ | What's the lowest common multiple of 6 and 8 ? $24$ | I scored 24 out of 40 on a test. What's that as a percentage? $\frac{24}{40}=\frac{6}{10}=60 \%$ |
|  <br> Average Daily Temperature ( ${ }^{\circ} \mathrm{F}$ ) <br> Positive | $a-(-b)=10$ | Complete the blanks: | It costs $£ 150$ to buy 9 games. How much does it cost to buy 12 games? <br> $£ 200$ |


| Multiply $2 \times 10^{5}$ by $7 \times 10^{8}$. Give your answer in standard form. $1.4 \times 10^{14}$ | Find angle a and give reasons. | Solve $15<3+6 x$. $x>2$ | If a man walks 1.3 km in 15 minutes, what is his average speed in km/h? $1.3 \times 4=5.2 \mathrm{~km} / \mathrm{h}$ |
| :---: | :---: | :---: | :---: |
| Translate the point $A$ by $\binom{3}{-2}$. Label the translated point B . | $65^{\circ}$ <br> (angles on a straight line and alternate angles oe) | Name each type of sequence: <br> a) $1,1,2,3,5,8, \ldots$ Fibonacci | Find the length of the edge of a cube which has surface area $54 \mathrm{~cm}^{2}$. <br> 3 cm |
|  <br> What are the coordinates of $B$ ? $(6,3)$ | Factorise $x^{2}+9 x+8$ $(x+8)(x+1)$ | b) $3,7,11,15,19, \ldots$ <br> Arithmetic <br> c) $1,2,4,8,16,32, \ldots$ <br> Geometric | Solve $x^{2}+6 x=0$. $\begin{aligned} & x(x+6)=0 \\ & x=0 \text { or }-6 \end{aligned}$ |

