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| AQA-logo-black | General Certificate of Secondary Education   |  |  | | --- | --- | | For Examiner’s Use | | | 3 |  | | 4 – 5 |  | | 6 – 7 |  | | 8 – 9 |  | | 10 – 11 |  | | 12 – 13 |  | | 14 – 15 |  | | 16 – 17 |  | | 18 |  | | TOTAL |  |   Foundation Tier |

**Mathematics (Linear) B**

**4365/1F**

**F**

**Paper 1 Non-calculator**

**Practice Paper 2012 Specification (Set 2)**

**For this paper you must have:**

* mathematical instruments.

You must **not** use a calculator.

You may use a calculator.



Time allowed

* 1 hour 15 minutes

Instructions

* Use black ink or black ball-point pen. Draw diagrams in pencil.
* Fill in the boxes at the top of this page.
* Answer **all** questions.
* You must answer the questions in the spaces provided. Do not write outside

the box around each page or on blank pages.

* Do all rough work in this book. Cross through any work that you do not want to

be marked.

Information

* The marks for questions are shown in brackets.
* The maximum mark for this paper is 70.
* The quality of your written communication is specifically assessed

in questions 8, 10 and 16.

These questions are indicated with an asterisk (🟎).

* You may ask for more answer paper, graph paper and tracing paper.  
  These must be tagged securely to this answer booklet.

Advice

* In all calculations, show clearly how you work out your answer.

**4365/1F**

**Formulae Sheet: Foundation Tier**

**Area of trapezium** = (*a* + *b*)*h*

**Volume of prism** = area of cross-section × length

*h*

*a*

*b*

length

cross-

section

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| Answer **all** questions in the spaces provided.  Do not write outside the box |
| **1** Here are five road signs.      **E**  **D**  **C**  **A**  **B**  **1 (a)** Which signs have line symmetry?  Answer ........*.............................................................. (1 mark)*  **1 (b)** Which signs have rotational symmetry?  Answer ......*.............................................................. (2 marks)*  **1 (c)** Write down the order of rotational symmetry of this sign.    Answer ....................................................................... *(1 mark)*  **Turn over for the next question**  **4** |

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| **2** Patterns are made from squares.  Do not write outside the box    Pattern 4  Pattern 3  Pattern 2  Pattern 1  **2 (a)** Draw Pattern 5.  (*1 mark*)  **2 (b)** How many squares are in Pattern 9?  ..............................................................................................................................................  ..............................................................................................................................................  Answer ........................................................................... *(2 marks)* |

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| **3** *A*, *B* and *C* are points plotted in a straight line.  Do not write outside the box    *x*  *y*  *C*  *B* (2, 5)  *A* (1, 3)  **3 (a)** Write down the coordinates of *C.*  Answer ( …………….. , …………… ) (*1 mark*)  **3 (b)** *P* lies on the same line.  The *x*-coordinate of *P* is 5.  Work out the *y*-coordinate of *P.*  ..............................................................................................................................................  Answer ( 5 , …………… ) (*1 mark*)  **Turn over for the next question**  **5** |

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| **4** This is a multiplication grid.  🞨  5  14  6  30  2  7  10  42    Fill in the missing numbers in the multiplication grid below.  🞨  32  12  40  8  *(3 marks)*  **5** Here is a calculation 6 + 3 × 4 − 2  James says the answer is 34.  He is wrong.  Work out the correct answer.  …............................…………...….…….....…………………………………………….…...........  ……........................…………...….…….....…………………………………………….…............  Answer *.............................................................. (2 marks)* |

Do not write  
outside the  
box

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| **6** Anna and Zena both fire four shots at a target.  Do not write outside the box  The dots ( ) show where the shots hit the target.  1  5  10  25  50    They both score exactly the same total.  One of Zena’s shots scored 50.  Work out the scores of Zena’s **other three** shots.  ……………………………………………………………………………………………….................  ……………………………………………………………………………………………….................  ……………………………………………………………………………………………….................  ...................................…………………………………………………………………………………    Answer …...….. , …...….. , …...….. (*3 marks*)  **8** |

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| **7** Tracey drives 10 miles to work and then 10 miles back home each day.  She works 4 days each week.  **7 (a)** Show that in six weeks she drives 480 miles to work and back.  ……………………………………………………………………………………………….............  ……………………………………………………………………………………………….............  …………………………………………………………………………………...............................  (*3 marks)*  **7 (b)** Her car travels 40 miles on each gallon of petrol.  How many gallons of petrol does she use over six weeks?  ……………………………………………………………………………………………….............  …………………………………………………………………………………...............................  Answer ……………………..…….…. gallons (*2 marks*)  🟎**8** This is the label on a packet of tablets.    Do not write outside the box    **TABLETS**  Take one tablet, three times a day.  At 7 am Shona takes her first tablet.  At 11 pm she takes her third tablet.  The time she takes her second tablet is **exactly** half way between the other two.  What time is this?  ……………………………………………………………………………………………….............  ……………………………………………………………………………………………….............  ……………………………………………………………………………………………….............  Answer …………………………………………….. (*2 marks*) |

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| **9** The table shows information about **all** the pupils in two classes.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **Boys** | | **Girls** | | | School Meal | Packed Lunch | School Meal | Packed Lunch | | **Class 1** | 3 | 9 | 15 | 3 | | **Class 2** | 6 | 8 | 3 | 13 |   **9 (a)** How many boys are in Class 1?  …………………………………………………………………………………...............................  Answer …………………….………………………. (*1 mark*)  **9 (b)** Hannah says, “More girls bring a packed lunch than have a school meal”.    Is Hannah correct?  Tick a box.  Yes No  You **must** show your working.  Do not write outside the box  ……………………………………………………………………………………………….............  …………………………………………………………………………………...............................  (*2 marks*)  **9 (c)** A pupil is chosen at random from Class 1.  What is the probability that the pupil has a school meal?  ……………………………………………………………………………………………….............  …………………………………………………………………………………...............................  Answer …………………….………………………. (*2 marks*)  **9 (d)** There are 30 pupils in Class 2.  What percentage of these are girls who have a school meal?  ……………………………………………………………………………………………….............  …………………………………………………………………………………...............................  **14**  Answer …………………….……………………% (*2 marks*) |

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| 🟎**10** 200 ml of juice makes 5 drinks.    Anne has 500 ml of juice.  Can she make 13 drinks?  Tick a box.  Yes No    Do not write outside the box    You **must** show your working.  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………............................... (*3 marks*)  **11** The picture shows a man and a bus.        Estimate the height of the bus.  Give your answer in metres.  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  Answer ….……………………………… m (*3 marks*) |

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| **12 (a)** Solve 12 + *x* = 10  Do not write outside the box  …………………………………………………………………………………………….................  Answer *x* = ……………….………………………. (*1 mark*)  **12 (b)** Solve 5*y* = 30  …………………………………………………………………………………………….................  Answer *y* = ……………….………………………. (*1 mark*)  **13** The stem-and-leaf diagram shows the ages of 23 members of a chess club.   |  |  |  |  | | --- | --- | --- | --- | | Key | 1 | 2 | represents 12 years |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 0 | 7 | 8 | 8 |  |  |  |  |  | | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 9 |  | | 2 | 0 | 1 | 3 | 7 | 7 | 8 | 8 | 9 | | 3 | 4 | 7 | 8 |  |  |  |  |  | | 4 | 2 | 3 |  |  |  |  |  |  |   **13 (a)** How many members of the chess club are over 35?  …………………………………………………………………………………………….................  Answer ....……………….………………………. (*1 mark*)  **13 (b)** Work out the range of the ages.  …………………………………………………………………………………………….................  Answer ..………….………………………years (*1 mark*)  **13 (c)** Work out the median age.  …………………………………………………………………………………………….................  Answer ..………….………………………years (*1 mark*)  **11** |

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| **14** The diagram shows a cuboid drawn on a centimetre isometric grid.  Do not write outside the box    **14 (a)** What is the volume of the cuboid?  …………………………………………………………………………………………….................  Answer ..………….………………………cm3 (*1 mark*)  **14 (b)** The cuboid is tipped over so that it stands on the shaded face.    Complete the drawing of the cuboid.    (*2 marks*) |

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| **15** Weights *A* and *B* balance with other weights as shown.  Do not write outside the box  All weights are kilograms.    *A*  *B*  *B*  *1*  *4*  *4*  *A*  *A*  *1*  *1*  *4*    Work out the weights *A* and *B*.  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………...............................  Answer *A* = ...................kg, *B* = .....................kg (*3 marks)*  **Turn over for the next question**  **6** |

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| 🟎**16** A raffle has three prizes.  Do not write outside the box  First prize is £40.  Second prize is  of the first prize.  Third prize is of the second prize.  Raffle tickets are 50 p each.  How many tickets need to be sold to make a profit of £70?  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………...............................    …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  Answer …………………….………………………. (*5 marks*) |

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| **17**  The average speed of a car is 50 miles per hour (mph).  Do not write outside the box  A journey is 400 kilometres (km).  How long will the journey last?  State any conversions you use.  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  Answer ..........…………………….………… hours (*3 marks*)  **18** The mode of five numbers is 3.  The median is 7.  The mean is 6.  Work out the five numbers.  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………...............................    …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  …………………………………………………………………………………………….................  Answer .........., .........., .........., .........., .......... (*3 marks*)  **Turn over for the next question**  **11** |

**Turn over ►**

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| **19** An arrowhead is drawn inside a square of side 6 cm.  Do not write outside the box  *X* is the midpoint of one side.  *Y* is the centre of the square.  Not drawn accurately  *X*  *Y*  6 cm  *Y*  *Y*      Work out the area of the arrowhead.    ………………………………………………………………………………………………………..  …………………………………………………………………………………………….................  ………………………………………………………………………………………………………..  Answer .……………………………………..….. cm2 (*3 marks*)  **20 (a)** Which of these is **not** a factor of 240?  Do not write outside the box  Circle your answer.  3 9 20 30 80  (*1 mark*)  **20 (b)** Write down **two** multiples of 240  …………………………………………………………………………………………….................  ………………………………………………………………………………………………………..  Answer ...………………and ………………… (*1 mark*)  **20 (c)** Work out the highest common factor (HCF) of 30 and 80  …………………………………………………………………………………………………………  Answer ...………………………………………… (*1 mark*)  **20 (d)** Work out the least common multiple (LCM) of 30 and 80  …………………………………………………………………………………………………………  …………………………………………………………………………………………………………  Answer ……………………………………..……. (*1 mark*)  **Turn over for the next question**  **7**  **21**  Ellie has 3000 songs on her MP3 player.  Do not write outside the box  **21 (a)** On Monday she listened to 50 songs chosen at random.  15 were rock songs.  Estimate the total number of rock songs on her MP3 player.  ..................................…………...….…….....………………………………………….................  ..................................…………...….…….....………………………………………….................  ..................................…………...….…….....………………………………………….................  Answer ………………………………………….. (*3 marks*)    **21 (b)** On Tuesday she again listened to 50 songs chosen at random.  10 were rock songs.  Give a reason why the number of rock songs was different each day.  ..................................…………...….…….....………………………………………….................  ..................................…………...….…….....………………………………………….................  (*1 mark*)  **4**  **END OF QUESTIONS**  Copyright © 2011 AQA and its licensors. All rights reserved. |