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| For Examiner’s Use |
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| 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 writeoutside thebox |
| **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 writeoutside theboxPattern 4 Pattern 3Pattern 2Pattern 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 writeoutside thebox*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.🞨514630271042  Fill in the missing numbers in the multiplication grid below.🞨3212408 *(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 writeoutside thebox The dots ( ) show where the shots hit the target.15102550 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 writeoutside thebox **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 writeoutside thebox ………………………………………………………………………………………………............. …………………………………………………………………………………...............................(*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 writeoutside thebox  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* = 10Do not writeoutside thebox…………………………………………………………………………………………….................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.

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| Key | 1 | 2 | represents 12 years |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 writeoutside thebox**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 writeoutside theboxAll 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 writeoutside theboxFirst 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 writeoutside theboxA 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 writeoutside thebox *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 writeoutside theboxCircle 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 writeoutside thebox**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. |