



THIRD SPACE
LEARNING

Mathematics

Paper 1

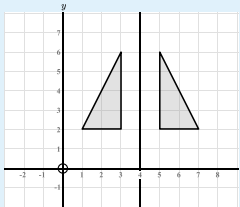
(Non-Calculator)

Foundation Tier

Mark Scheme

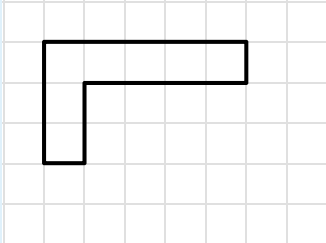
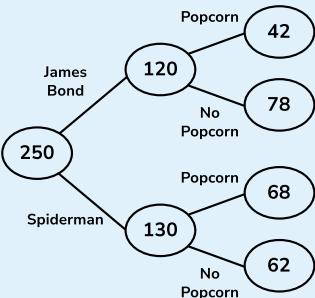
Edexcel GCSE

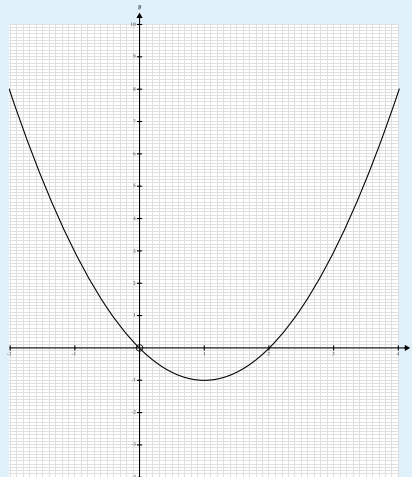
SET 1A

Question	Working	Answer	Notes
Q1		1.04, 1.14, 1.4, 1.44, 10.4	B1 cao
Q2		$4a + 9b$	B1 cao
Q3		5600m	B1 cao
Q4			B1 cao
Q5a	Total hours: $5+3+6.5+3.5=18$ $£18 \times 10 = £180$	£180	M1 Attempt to add the number of hours A1 cao
Q5b	40% of £200 = £80 $£100 - 80 - 22.50 = £97.50$	No	M1 Attempting to find 40% of £200 A1 No and £102.50 or £97.50 seen
Q6		$2^2 \times 3 \times 5 \times 7$	M1 Prime factor tree resulting in the prime factors 2, 2, 3, 5, 7 A1 cao
Q7a		She has added the numerators and added the denominators	B1 oe
Q7b	$\frac{8}{28} + \frac{7}{28} = \frac{15}{28}$	$\frac{15}{28}$	M1 Writing the fractions over a common denominator A1 cao

Question	Working	Answer	Notes
Q8a		-14	A1 cao
Q8b	36	36	A1 cao
Q9a	$60 \div 15 = 4$ $4 \times 3.5 = 14$	14	M1 Dividing 60 by the number of triangles M1 Multiplying number of triangles for blackbirds by value of one triangle A1 cao
Q9b	Jess: $14+18+8+7+3=50$ Hollie: $19+15+9+6+15=64$	Hollie	M1 Correctly finding the number of birds seen by Jess or Hollie A1 cao
Q10	$\frac{3}{4} = 0.75, \frac{4}{5} = 0.8$	$72\%, \frac{3}{4}, 0.77, \frac{4}{5}$	M1 Attempting to convert all values to the same form A1 cao
Q11	$v = 10 + 5 \times 6$ $v = 10 + 30$ $v = 40$	40	M1 Substituting the values into $v=u+at$ A1 cao
Q12	$\frac{3}{8}$ of 24 = 9, $24 - 9 = 15$ $\frac{2}{5}$ of 30 = 12, $30 - 12 = 18$	Ben	M1 Correctly calculating the number of sweets eaten or left for Gary M1 Correctly calculating the number of sweets eaten or left for Ben A1 Ben with 9 and 12 or 15 and 18 seen

Question	Working	Answer	Notes
Q13a		$2n + 1$	M1 Finding a common difference of 2 A1 cao
Q13b		All values in the sequence are odd	B1 oe
Q14a		23	M1 141-118 A1 cao
Q14b		$\frac{7}{14}$	A1 correct numerator A1 correct denominator
Q15	$5+2=7$, $35 \div 7=5$ $5 \times 5=25$ apples, $5 \times 2=10$ oranges $25 \times 30p = 750p$, $10 \times 40=400p$ $750p + 400p=1150p$	£11.50	M1 Dividing 35 by 7 M1 Correctly finding the number of oranges and the number of apples M1 750p or £7.50 and 400p or £4 seen A1 cao
Q16a		4.72×10^6	A1 cao
Q16b		0.0071	A1 cao
Q16c	$46000 + 512000=558000$ or $0.46 \times 10^5 + 5.12 \times 10^5 = 5.58 \times 10^5$	5.58×10^5	M1 Correctly writing both numbers as ordinary numbers or both with the same power of 10 A1 cao

Question	Working	Answer	Notes
Q17			A1 an 'L' shape A1 fully correct shape
Q18	$3y - 12 < 6$ $3y < 18$ $y < 6$	$y < 6$	M1 Correctly expanding brackets M1 Attempt to solve equation by moving the constants to one side A1 cao
Q19a	$20\% \text{ of } 200000 = £40000$ $£200000 + £40000 = £240000$	£240000	M1 Correctly finding 20% of £200000 A1 cao
Q19b	$200000:240000$ $20:24$ $5:6$	5:6	M1 200000:240000 A1 cao
Q20a	$35\% \text{ of } 120 = 42$		M1 120 and 130 correct M1 42 correct A1 cao

Question	Working	Answer	Notes																
Q20b		$\frac{68}{130}$ or $\frac{34}{65}$	A1 oe																
Q21a	<table><tr><td>x</td><td>-2</td><td>-1</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>y</td><td>8</td><td>3</td><td>0</td><td>-1</td><td>0</td><td>3</td><td>8</td></tr></table>	x	-2	-1	0	1	2	3	4	y	8	3	0	-1	0	3	8	3, -1, 0	M1 at least 2 values correct A1 cao
x	-2	-1	0	1	2	3	4												
y	8	3	0	-1	0	3	8												
Q21b			M1 Points plotted followed through from their table. Allow one error in plotting A1 fully correct curve																
Q21c		$x=0$ and $x=2$	A1 cao																
Q22	1 hour 30 mins = 1.5 hours $105 \div 1.5 = 70$	Yes	M1 Using 1.5 hours M1 Dividing distance by time A1 Yes with 70 seen																
Q23	$4 \times 180=720$ $39+157+50+140+19=405$ $720 - 405= 315^\circ$	315°	B1 720° M1 Attempt to subtract the other values from a total angle. Doesn't have to be 720° . Must subtract 5 values A1 cao																

Question	Working	Answer	Notes
Q24	$c = kh$ $320 = k \times 4$ $k = 80$ $c = 80 \times 7 = \text{£}560$	£560	M1 dividing 320 by 4 M1 80×7 seen A1 cao
Q25a	$(x+4)(x+2) = 35$ $x^2 + 6x + 8 = 35$ $x^2 + 6x - 27 = 0$		M1 $(x+4)(x+2)=35$ A1 at least two more correct steps seen
Q25b	$(x+9)(x-3)=0$ $x=-9$ (invalid) $x=3$ Perimeter: $7+5+7+5=24\text{cm}$	24cm	M1 $x=3$ A1 cao
Q26	$\sin(30)=0.5$ $\tan(45)=1$	1.5	M1 either $\sin(30)=0.5$ or $\tan(45)=1$ seen A1 cao
Q27a	Radius = 4cm Volume: $\pi \times 4^2 \times 10 = 160\pi$	160π	M1 $\pi \times 4^2$ seen M1 Attempt to multiply area of circle by height A1 cao
Q27b	$12 \times 5 \times 8 = 480$	$160 \times 3 = 480$. Since π is greater than 3, the volume of the jug is greater than 480. Therefore the juice will fit.	B1 yes B1 a correct explanation

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