

[C056/SQP105]

Intermediate 2

Mathematics

Specimen Marking Instructions 1 (Units 1, 2, 3)

Non-calculator Paper

NATIONAL
QUALIFICATIONS

Mathematics Intermediate 2 (Paper 1)

Qu	Marking Scheme Give 1 mark for each •	Illustrations of evidence for awarding a mark at each •
1.	ans : 3/8 • ¹ strategy: know to write probability as $x/\text{total number of outcomes}$ • ² process: find probability 2 marks	• ¹ $\frac{\quad}{8}$ • ² $\frac{3}{8}$
2.	ans : $(x - 8)(x + 1)$ • ¹ process: factorise binomial expression • ² process: complete factorisation 2 marks	• ¹ one correct factor • ² 2 nd correct factor
3a.	ans : 9 and 3 • ¹ communicate: state upper and lower quartiles 1 mark	• ¹ 9 and 3
3b.	ans : (possible) 13, 15, 15, 16, 17, 19, 22 • ¹ strategy: identify upper, lower quartiles and median • ² strategy: identify end points of the range • ³ communicate: complete process correctly 3 marks	• ¹ 15, 16, 19 • ² 13, 22 • ³ any two valid measurements

Qu	Marking Scheme Give 1 mark for each •	Illustrations of evidence for awarding a mark at each •
4.	ans : $(x - 4)^2 - 32$ • ¹ interpret: identify “a” • ² interpret: identify “b” 2 marks	• ¹ $a = -4$ • ² $b = -32$
5.	ans : $y = 2x + 1$ • ¹ process: identify y intercept or evaluate “c” in $y = mx + c$ • ² process: find gradient • ³ communicate: state equation of straight line 3 marks	• ¹ 1 • ² 2 • ³ $y = 2x + 1$
6a.	ans : $m + r = 180$ • ¹ interpret: start to interpret text • ² interpret: complete interpretation 2 marks	• ¹ $m + r$ • ² $m + r = 180$

Qu	Marking Scheme Give 1 mark for each •	Illustrations of evidence for awarding a mark at each •
6b.	ans : $9m + 7.5r = 1500$ • ¹ interpret: start to interpret text • ² interpret: complete interpretation 2 marks	• ¹ $9m + 7.5r$ • ² $9m + 7.5r = 1500$
6c.	ans : 100 maple trees; 80 rowan trees • ¹ strategy: know to solve system of equations • ² process: solve system of equations • ³ communicate: state result 3 marks	• ¹ $m + r = 180$ $9m + 7.5r = 1500$ • ² $m = 100$ $r = 80$ • ³ 100 maple 80 rowan

Qu

Marking Scheme
Give 1 mark for each •

Illustrations of evidence
for awarding a mark at each •

7a.	ans $\frac{3\sqrt{5}}{5}$ •¹ strategy: know how to rationalise denominator •² process: simplify fraction 2 marks	•¹ $\frac{3 \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}}$ •² $\frac{3\sqrt{5}}{5}$
7b.	ans : b •¹ process: add indices in numerator •² process: subtract indices 2 marks	•¹ b^2 •² b
7c.	ans : $\frac{2x-10}{x(x-2)}$ •¹ process: state valid denominator •² process: find numerators of equivalent fractions •³ process: state answer in simplest form 3 marks	•¹ $x(x-2)$ •² $5(x-2), 3x$ •³ $\frac{2x-10}{x(x-2)}$

[END OF MARKING INSTRUCTIONS]