teachably

GCSE Mathematics

Angles in Parallel Lines

Mark Scheme - Foundation | Grades 4-5

M = method mark, A = accuracy mark (dependent on the preceding M mark), B = independent mark.

Edexcel-style questions

Q1 Grade 4 Edexcel style

Total: 2

Part	Mark scheme	Marks
(a)	a = 75°	B1
(a)	corresponding angles are equal	B1

Q2 Grade 4 Edexcel style

Total: 2

Part	Mark scheme	Marks
(a)	a = 80°	B1
(a)	alternate angles are equal	B1

Q3 Grade 5 Edexcel style

Total: 3

Part	Mark scheme	Marks
(a)	180 - 105	M1
(a)	a = 75°	A1
(a)	co-interior angles sum to 180°	B1

Q4 Grade 5 Edexcel style

Total: 3

Part	Mark scheme	Marks
(a)	y = 70° (vertically opposite angles)	B1
(a)	180 - 70	M1
(a)	x = 110° (co-interior angles)	A1

Q5 Grade 5 Edexcel style

Total: 3

Part	Mark scheme	Marks
(a)	draw a line through M parallel to both lines	M1
(a)	35° + 40° (alternate angles on each part of the bend)	M1
(a)	x = 75°	A1

AQA-style questions

Q6 Grade 4 AQA style

Total: 2

Part	Mark scheme	Marks
(a)	b = 110°	B1
(a)	corresponding angles are equal	B1

Q7 Grade 4 AQA style

Total: 2

Part	Mark scheme	Marks
(a)	b = 55°	B1
(a)	alternate angles are equal	B1

Q8 Grade 5 AQA style

Total: 3

Part	Mark scheme	Marks
(a)	180 - 72	M1
(a)	b = 108°	A1
(a)	co-interior angles sum to 180°	B1

Q9 Grade 5 AQA style

Total: 3

Part	Mark scheme	Marks
(a)	x = 48° (corresponding angles)	B1
(a)	180 - 48	M1
(a)	y = 132° (co-interior angles)	A1

Q10 Grade 5 AQA style

Total: 3

Part	Mark scheme	Marks
(a)	4x - 10 = 70 (corresponding angles are equal)	M1
(a)	4x = 80	M1
(a)	x = 20	A1

OCR-style questions

Q11 Grade 4 OCR style

Total: 2

Part	Mark scheme	Marks
(a)	c = 65°	B1
(a)	corresponding angles are equal	B1

Q12 Grade 4 OCR style

Total: 2

Part	Mark scheme	Marks
(a)	c = 63°	B1
(a)	alternate angles are equal	B1

Q13 Grade 5 OCR style

Total: 3

Part	Mark scheme	Marks
(a)	180 - 118	M1
(a)	c = 62°	A1
(a)	co-interior angles sum to 180°	B1

Q14 Grade 5 OCR style

Total: 3

Part	Mark scheme	Marks
(a)	x = 82° (alternate angles)	B1
(a)	180 - 82	M1
(a)	y = 98° (co-interior angles)	A1

Q15 Grade 5 OCR style

Total: 2

Part	Mark scheme	Marks
(a)	115° + 70° = 185°	M1
(a)	the lines are not parallel, because co-interior angles that sum to 180° would be needed, and 185° ≠ 180°	A1

Teachably-style questions

Q16 Grade 4 Teachably style — Total: 2

Part	Mark scheme	Marks
(a)	d = 98°	B1
(a)	corresponding angles are equal	B1

Q17 Grade 4 Teachably style — Total: 2

Part	Mark scheme	Marks
(a)	d = 72°	B1
(a)	alternate angles are equal	B1

Q18 Grade 5 Teachably style — Total: 3

Part	Mark scheme	Marks
(a)	180 - 95	M1
(a)	d = 85°	A1
(a)	co-interior angles sum to 180°	B1

Q19 Grade 5 Teachably style — Total: 3

Part	Mark scheme	Marks
(a)	x = 63° (vertically opposite angles)	B1
(a)	180 - 63	M1
(a)	y = 117° (co-interior angles)	A1

Q20 Grade 5 Teachably style — Total: 3

Part	Mark scheme	Marks
(a)	x = 65° (corresponding angles)	B1
(a)	the vertically opposite angle at the middle intersection is also 65°, so 180 - 65	M1
(a)	y = 115° (co-interior angles)	A1

END OF PAPER