

Answer Key — Classifying Angles

Year 4 Mathematics · Measurement and geometry · WA4MMGAN1

Section A — Fluency (16 marks, 1 mark each)

1. Acute
2. Right
3. Obtuse
4. Straight
5. Acute
6. Obtuse
7. Acute
8. Obtuse
9. Acute
10. Obtuse
11. Acute
12. Obtuse
13. Obtuse
14. Acute
15. Obtuse
16. Acute

Section B — Core (21 marks)

1. Obtuse (95° is between 90° and 180°). [3 marks]
2. (a) Right angle. (b) 90° . [2 marks part (a), 2 marks part (b)]
3. Acute (15° is less than 90°). [3 marks]
4. (a) Obtuse. (b) 10° more ($170^\circ + 10^\circ = 180^\circ$). [2 marks part (a), 2 marks part (b)]
5. Straight (exactly 180°). [3 marks]
6. (a) Acute. (b) 50° more ($40^\circ + 50^\circ = 90^\circ$). [2 marks part (a), 2 marks part (b)]

Section C — Reasoning (9 marks) — sample responses, award marks for valid reasoning

1. An acute angle is less than 90° , while an obtuse angle is bigger than 90° but less than 180° ; acute angles are always smaller than right angles, and obtuse angles are always bigger. [2 marks]
2. A 90° angle is exactly a right angle by definition, not acute; an acute angle must measure strictly less than 90° , so 90° itself never counts as acute, however it looks. [2 marks]
3. A straight angle forms a straight line, which is made up of two right angles placed together ($90^\circ + 90^\circ = 180^\circ$). [2 marks]
4. An obtuse angle, such as 120° , is bigger than a right angle (90°) but is not a full straight angle (180°); angles between 90° and 180° exist without being straight. [3 marks]

Section D — Challenge (7 marks)

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1. 75° ($3 \times 25^\circ$), which is acute. [2 marks]
2. 115° ($180^\circ - 65^\circ$), which is obtuse. [2 marks]
3. 100° ($90^\circ + 10^\circ$), which is obtuse. [3 marks]