

# MISSING ANGLES IN QUADRILATERALS

Answer all of these questions. Remember to show your working out in all questions.

## MAIN QUESTIONS

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| 1. A quadrilateral has angles $80^\circ$ , $90^\circ$ , and $100^\circ$ . Find the missing angle. | 2. A quadrilateral has angles $70^\circ$ , $85^\circ$ , and $95^\circ$ . Find the missing angle.   |
| 3. A quadrilateral has angles $60^\circ$ , $75^\circ$ , and $105^\circ$ . Find the missing angle. | 4. A quadrilateral has angles $50^\circ$ , $65^\circ$ , and $115^\circ$ . Find the missing angle.  |
| 5. A quadrilateral has angles $40^\circ$ , $55^\circ$ , and $125^\circ$ . Find the missing angle. | 6. A quadrilateral has angles $30^\circ$ , $45^\circ$ , and $135^\circ$ . Find the missing angle.  |
| 7. A quadrilateral has angles $20^\circ$ , $35^\circ$ , and $145^\circ$ . Find the missing angle. | 8. A quadrilateral has angles $10^\circ$ , $25^\circ$ , and $155^\circ$ . Find the missing angle.  |
| 9. A quadrilateral has angles $5^\circ$ , $15^\circ$ , and $165^\circ$ . Find the missing angle.  | 10. A quadrilateral has angles $1^\circ$ , $10^\circ$ , and $170^\circ$ . Find the missing angle.  |
| 11. A quadrilateral has angles $45^\circ$ , $90^\circ$ , and $90^\circ$ . Find the missing angle. | 12. A quadrilateral has angles $60^\circ$ , $60^\circ$ , and $120^\circ$ . Find the missing angle. |

13. A quadrilateral has angles  $75^\circ$ ,  $75^\circ$ , and  $105^\circ$ . Find the missing angle.
14. A quadrilateral has angles  $90^\circ$ ,  $90^\circ$ , and  $90^\circ$ . Find the missing angle.
15. A quadrilateral has angles  $100^\circ$ ,  $100^\circ$ , and  $80^\circ$ . Find the missing angle.
16. A quadrilateral has angles  $110^\circ$ ,  $110^\circ$ , and  $70^\circ$ . Find the missing angle.
17. A quadrilateral has angles  $120^\circ$ ,  $120^\circ$ , and  $60^\circ$ . Find the missing angle.
18. A quadrilateral has angles  $130^\circ$ ,  $130^\circ$ , and  $50^\circ$ . Find the missing angle.
19. A quadrilateral has angles  $140^\circ$ ,  $140^\circ$ , and  $40^\circ$ . Find the missing angle.
20. A quadrilateral has angles  $150^\circ$ ,  $150^\circ$ , and  $30^\circ$ . Find the missing angle.
21. A quadrilateral has angles  $160^\circ$ ,  $160^\circ$ , and  $20^\circ$ . Find the missing angle.
22. A quadrilateral has angles  $170^\circ$ ,  $170^\circ$ , and  $10^\circ$ . Find the missing angle.
23. A quadrilateral has angles  $180^\circ$ ,  $180^\circ$ , and  $0^\circ$ . Find the missing angle.
24. A quadrilateral has angles  $25^\circ$ ,  $50^\circ$ , and  $125^\circ$ . Find the missing angle.
25. A quadrilateral has angles  $35^\circ$ ,  $70^\circ$ , and  $115^\circ$ . Find the missing angle.
26. A quadrilateral has angles  $45^\circ$ ,  $90^\circ$ , and  $105^\circ$ . Find the missing angle.
27. A quadrilateral has angles  $55^\circ$ ,  $110^\circ$ , and  $95^\circ$ . Find the missing angle.
28. A quadrilateral has angles  $65^\circ$ ,  $130^\circ$ , and  $85^\circ$ . Find the missing angle.
29. A quadrilateral has angles  $75^\circ$ ,  $150^\circ$ , and  $75^\circ$ . Find the missing angle.
30. A quadrilateral has angles  $85^\circ$ ,  $170^\circ$ , and  $65^\circ$ . Find the missing angle.

## MASTER QUESTIONS

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- M1.** A kite has two angles of  $50^\circ$  and  $100^\circ$ . Find the other two angles if they are equal.
- M2.** A trapezium has angles of  $70^\circ$ ,  $110^\circ$ , and  $80^\circ$ . Find the missing angle.
- M3.** A parallelogram has two angles of  $75^\circ$ . Find the other two angles.
- M4.** A rhombus has one angle of  $60^\circ$ . Find the other three angles.
- M5.** A quadrilateral has angles in the ratio 1:2:3. The fourth angle is  $120^\circ$ . Find the other three angles.
- M6.** A quadrilateral has angles in the ratio 2:3:4. The fourth angle is  $90^\circ$ . Find the other three angles.
- M7.** A quadrilateral has angles in the ratio 3:4:5. The fourth angle is  $60^\circ$ . Find the other three angles.
- M8.** A quadrilateral has angles in the ratio 4:5:6. The fourth angle is  $30^\circ$ . Find the other three angles.
- M9.** A quadrilateral has angles in the ratio 5:6:7. The fourth angle is  $0^\circ$ . Find the other three angles.
- M10.** A quadrilateral has angles in the ratio 6:7:8. The fourth angle is  $270^\circ$ . Find the other three angles.