FINDING ANGLES

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

MAIN QUESTIONS

1. $x + 50° = 180°$

2. $120° + y = 180°$

3. $z + 65° = 180°$

4. $142° + a = 180°$

5. $b + 90° = 180°$

6. $2c + 40° = 180°$

7. $d + 3d = 180°$

8. $e - 20° + 100° = 180°$

9. $f + 75° = 180°$

10. $3g - 30° + 60° = 180°$

11. $h + 100° = 360°$

12. $i + 120° + 80° = 360°$

13. $j + 90° + 90° + 90° = 360°$

14. $k + 150° + 70° + 50° = 360°$

15. $2m + 100° = 360°$

16. $n + 3n = 360°$

17. $p + 180° + 60° = 360°$

18. $q + 110° + 85° + 65° = 360°$

19. $r + 200° + 70° = 360°$

20. $3s - 30° + 120° = 360°$

21. $x + 35° = 90°$

22. $y + 48° = 90°$

23. $z + 60° = 90°$

24. $2a + 40° = 90°$

25. $b + 55° = 90°$

26. $90° + 30° + c = 180°$

27. $90° + 45° + d = 180°$

28. $180° - (90° - 40°)$

29. $3h + 60° = 180°$

30. $2x + 3x = 180°$

MASTER QUESTIONS

M1. Two angles on a straight line are such that one is 75°. Find the other.

M2. Three angles meet at a point. They are 85°, 95°, and x. Find x.

M3. In a right-angled triangle, one acute angle is 28°. Find the other acute angle.

M4. A straight line is crossed by another line, forming an angle of 55°. Find the adjacent angle on the straight line.

M5. The angles around a point are in the ratio 2:3:4. Find the largest angle.

M6. In a triangle, one angle is a right angle, another is 40°. Find the third angle.

M7. At a point, four angles are formed; three are 90°, 90°, and 120°. Find the fourth angle.

M8. A ladder leans against a wall, making a 75° angle with the ground. Find the angle it makes with the wall.

M9. A pie chart has three sectors with angles 72° and 108°. Find the third angle.

M10. A quadrilateral has angles 80°, 90°, 100°, and x. Find x.