FINDING ANGLES

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

MAIN QUESTIONS

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1. $x + 50° = 180°$ $x = 130°$

2. $120° + y = 180°$ $y = 60°$

3. $z + 65° = 180°$ $z = 115°$

4. $142° + a = 180°$ $a = 38°$

5. $b + 90° = 180°$ $b = 90°$

6. $2c + 40° = 180°$ $c = 70°$

7. $d + 3d = 180°$ $d = 45°$

8. $e - 20° + 100° = 180°$ $e = 100°$

9. $f + 75° = 180°$ $f = 105°$

10. $3g - 30° + 60° = 180°$ $g = 50°$

11. $h + 100° = 360°$ $h = 260°$

12. $i + 120° + 80° = 360°$ $i = 160°$

13. $j + 90° + 90° + 90° = 360°$ $j = 90°$

14. $k + 150° + 70° + 50° = 360°$ $k = 90°$

15. $2m + 100° = 360°$ $m = 130°$

16. $n + 3n = 360°$ $n = 90°$

17. $p + 180° + 60° = 360°$ $p = 120°$

18. $q + 110° + 85° + 65° = 360°$ $q = 100°$

19. $r + 200° + 70° = 360°$ $r = 90°$

20. $3s - 30° + 120° = 360°$ $s = 90°$

21. $x + 35° = 90°$ $x = 55°$

22. $y + 48° = 90°$ $y = 42°$

23. $z + 60° = 90°$ $z = 30°$

24. $2a + 40° = 90°$ $a = 25°$

25.	$b + 55° = 90°$	$b = 35°$	26.	$90° + 30° + c = 180°$	$c = 60°$
27.	$90° + 45° + d = 180°$	$d = 45°$	28.	$180° - (90° - 40°)$	$130°$
29.	$3h + 60° = 180°$	$h = 40°$	30.	$2x + 3x = 180°$	$x = 36°$

MASTER QUESTIONS

M1. Two angles on a straight line are such that one is 75°. Find the other. | 105°

M2. Three angles meet at a point. They are 85°, 95°, and x. Find x. | 180°

M3. In a right-angled triangle, one acute angle is 28°. Find the other acute angle. | 62°

M4. A straight line is crossed by another line, forming an angle of 55°. Find the adjacent angle on the straight line. | 125°

M5. The angles around a point are in the ratio 2:3:4. Find the largest angle. | 160°

M6. In a triangle, one angle is a right angle, another is 40°. Find the third angle. | 50°

M7. At a point, four angles are formed; three are 90°, 90°, and 120°. Find the fourth angle. | 60°

M8. A ladder leans against a wall, making a 75° angle with the ground. Find the angle it makes with the wall. | 15°

M9. A pie chart has three sectors with angles 72° and 108°. Find the third angle. | 180°

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