Mathematics

Circle Theorems - Answers

Exercise A

1. $a = 27°, b = 30°$
2. $c = 20°, d = 45°$
3. $c = 58°, d = 41°, e = 30°$
4. $f = 40°, g = 55°, h = 55°$
5. $a = 32°, b = 80°, c = 43°$
6. $c = 34°, y = 34°$
7. $43°$
8. $92°$
9. $42°$
10. $c = 46°, d = 44°$
11. $e = 49°, f = 41°$
12. $g = 76°, h = 52°$
13. $48°$
14. $32°$
15. $22°$
16. $a = 36°, x = 36°$

Exercise B

1. $a = 94°, b = 75°$
2. $c = 101°, d = 84°$
3. $x = 92°, y = 116°$
4. $c = 60°, d = 45°$
5. $37°$
6. $118°$
7. $e = 36°, f = 72°$
8. $35°$
9. $18°$
10. $90°$
11. $30°$
12. $22\frac{1}{2}°$
13. $n = 58°, t = 64°, w = 45°$
14. $a = 32°, b = 40°, c = 40°$
15. $a = 18°, c = 72°$
16. $55°$
17. $e = 41°, f = 41°, g = 41°$
18. $8°$
19. $x = 30°, y = 115°$
20. $x = 80°, z = 10°$

Exercise C

1. $a = 18°$
2. $53°$
3. $77°$
4. $x = 40°, y = 65°, z = 25°$
5. $c = 30°, e = 15°$
6. $f = 50°, g = 40°$
7. $h = 70°, k = 40°, i = 40°$
8. $m = 108°, n = 36°$
9. $x = 50°, y = 68°$
10. $a = 74°, b = 32°$
11. $e = 36°$
12. $k = 63°, m = 54°$
13. $k = 50°, m = 50°, n = 80°, p = 80°$
14. (a) p (b) $2p$ (c) $90 - 2p$
15. $x = 70°, y = 20°, z = 55°$

Exercise D

1. $137°$
2. $120°$
3. $c = d = 30°, e = 27°$
4. $49°$
5. $18°$
6. $110°$
7. $i = 52°, j = 128°$
8. $k = 45°, l = 135°$
9. $m = 35°, n = 50°$
10. $69°$
11. $78°$
12. $r = 200°, s = 100°$
13. $45°$
14. $b = 30°, c = 60°$
15. $72°$
16. $e = 19°$
17. $50°$
18. $g = 58°, h = 90°$
19. $i = 45°$
20. $j = 96°, k = 42°$
21. $m = 28°$