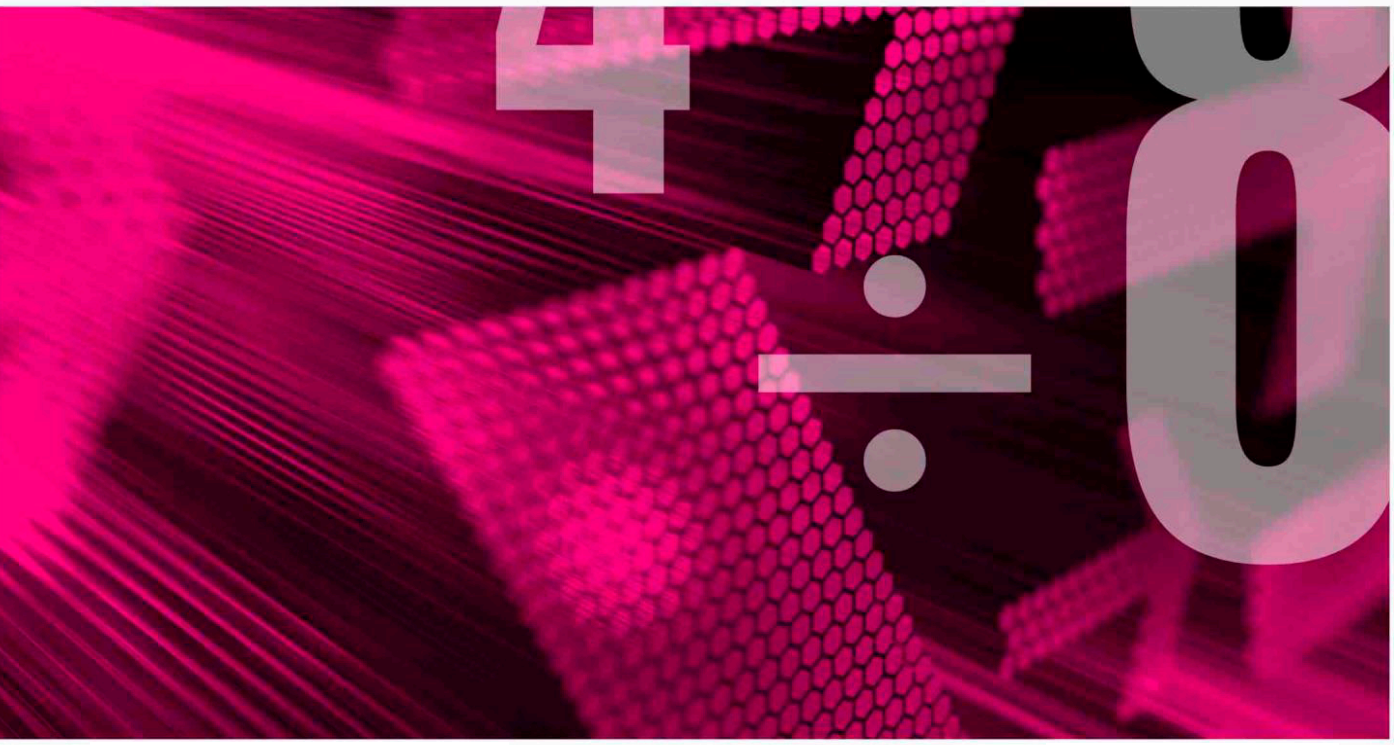
Junior Certificate School Programme

Sum Zone

Measurement of Curved Shapes

Student Workbook



An Roinn Oideachais agus Scileanna
Department of Education and Skills

PDST
Professional Development Service for Teachers | An tSeirbhís um Fhorbairt Ghairmiúil do Mhúinteoirí

Junior Certificate School Programme

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Chapter 1

Diameter and Radius of a Circle

1. The length of the radius of a circle is 10 cm. What is the length of the diameter?

2. The length of the radius of a circle is 15 cm. What is the length of the diameter?

3. The length of the radius of a circle is 8 cm. What is the length of the diameter?

4. The length of the radius of a circle is 0.5 cm. What is the length of the diameter?

5. The length of the radius of a circle is 16 mm. What is the length of the diameter?

6. The length of the radius of a circle is 80 mm. What is the length of the diameter?

7. The length of the radius of a circle is 45 cm. What is the length of the diameter?

8. The length of the diameter of a circle is 18 cm. What is the length of the radius?

9. The length of the diameter of a circle is 50 cm. What is the length of the radius?

10. The length of the diameter of a circle is 18 cm. What is the length of the radius?

11. The length of the diameter of a circle is 9 cm. What is the length of the radius?

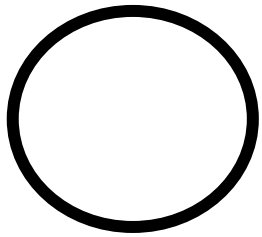
12. The length of the diameter of a circle is 45 mm. What is the length of the radius?

13. The length of the diameter of a circle is 36 cm. What is the length of the radius?

14. The length of the diameter of a circle is 156 cm. What is the length of the radius?

Chapter 2

Circumference (Length) of a Circle



1. Find the length of the circumference of a circle, if the radius is 12 cm. Use 3.14 as the value of π.

2. Find the length of the circumference of a circle, if the radius is 10 cm. Use 3.14 as the value of π.

3. Find the length of the circumference of a circle, if the radius is 8 cm. Use 3.14 as the value of π.

4. Find the length of the circumference of a circle, if the radius is 7 cm. Use 3.14 as the value of π.

5. Find the length of the circumference of a circle, if the radius is 9 cm. Use 3.14 as the value of π.

6. Find the length of the circumference of a circle, if the radius is 5 cm. Use 3.142 as the value of π.

7. Find the length of the circumference of a circle, if the radius is 13 cm. Use 3.142 as the value of π.

8. Find the length of the circumference of a circle, if the radius is 11 cm. Use 3.142 as the value of π.

9. Find the length of the circumference of a circle, if the radius is 4 cm. Use 3.142 as the value of π.

10. Find the length of the circumference of a circle, if the radius is 7 cm. Use 3.142 as the value of π.

11. Find the length of the circumference of a circle, if the radius is 14 cm. Use $\frac{22}{7}$ as the value of π.

12. Find the length of the circumference of a circle, if the radius is 21 cm. Use $\frac{22}{7}$ as the value of π.

13. Find the length of the circumference of a circle, if the radius is 28 cm. Use $\frac{22}{7}$ as the value of π.

14. Find the length of the circumference of a circle, if the radius is 35 cm. Use $\frac{22}{7}$ as the value of π.

15. Find the length of the circumference of a circle, if the radius is 42 cm. Use $\frac{22}{7}$ as the value of π.

16. Find the length of the circumference of a circle, if the radius is 49 cm. Use $\frac{22}{7}$ as the value of π.

17. Find the length of the circumference of a circle, if the radius is 56 cm. Use $\frac{22}{7}$ as the value of π.

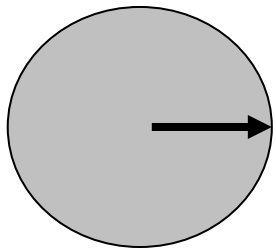
18. Find the length of the circumference of a circle, if the radius is 63 cm. Use $\frac{22}{7}$ as the value of π.

19. Find the length of the circumference of a circle, if the radius is 70 cm. Use $\frac{22}{7}$ as the value of π.

20. Find the length of the circumference of a circle, if the radius is 77 cm. Use $\frac{22}{7}$ as the value of π.

Chapter 3

Area of a Disc / Circle



1. Find the area of a circle/disc if the radius is 7 cm. Use 3.14 as the value of π.

2. Find the area of a circle/disc if the radius is 6 cm. Use 3.14 as the value of π.

3. Find the area of a circle/disc if the radius is 12 cm. Use 3.14 as the value of π.

4. Find the area of a circle/disc if the radius is 8 cm. Use 3.14 as the value of π.

5. Find the area of a circle/disc if the radius is 11 cm. Use 3.14 as the value of π.

6. Find the area of a circle/disc if the radius is 5 cm. Use 3.14 as the value of π.

7. Find the area of a circle/disc if the radius is 7 cm. Use 3.14 as the value of π.

8. Find the area of a circle/disc if the radius is 4 cm. Use 3.142 as the value of π.

9. Find the area of a circle/disc if the radius is 12 cm. Use 3.142 as the value of π.

10. Find the area of a circle/disc if the radius is 6 cm. Use 3.142 as the value of π.

11. Find the area of a circle/disc if the radius is 15 cm. Use 3.142 as the value of π.

12. Find the area of a circle/disc if the radius is 36 cm. Use 3.142 as the value of π.

13. Find the area of a circle/disc if the radius is 16 cm. Use 3.142 as the value of π.

14. Find the area of a circle/disc if the radius is 20 cm. Use 3.142 as the value of π.

15. Find the area of a circle/disc if the radius is 63 cm. Use $\frac{22}{7}$ as the value of π.

16. Find the area of a circle/disc if the radius is 21 cm. Use $\frac{22}{7}$ as the value of π.

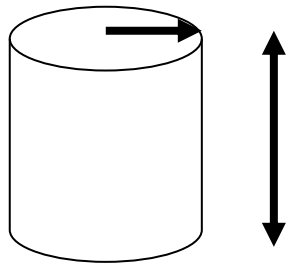
17. Find the area of a circle/disc if the radius is 14 cm. Use $22/7$ as the value of π.

18. Find the area of a circle/disc if the radius is 42 cm. Use $22/7$ as the value of π.

19. Find the area of a circle/disc if the radius is 35 cm. Use $22/7$ as the value of π.

Chapter 4

Volume of a Cylinder



1. Find the volume of a cylinder if the radius is 7 cm and the height is 10 cm. Use $22/7$ as the value of π.

2. Find the volume of a cylinder if the radius is 14 cm and the height is 15 cm. Use $22/7$ as the value of π.

3. Find the volume of a cylinder if the radius is 21 cm and the height is 17 cm. Use $22/7$ as the value of π.

4. Find the volume of a cylinder if the radius is 42 cm and the height is 36 cm. Use $22/7$ as the value of π.

5. Find the volume of a cylinder if the radius is 35 cm and the height is 11 cm. Use $22/7$ as the value of π.

6. Find the volume of a cylinder if the radius is 49 cm and the height is 10 cm. Use $22/7$ as the value of π.

7. Find the volume of a cylinder if the radius is 56 cm and the height is 15 cm. Use $22/7$ as the value of π.

8. Find the volume of a cylinder if the radius is 12 cm and the height is 35 cm. Use 3.14 as the value of π.

9. Find the volume of a cylinder if the radius is 8 cm and the height is 12 cm. Use 3.142 as the value of π.

10. Find the volume of a cylinder if the radius is 15 cm and the height is 42 cm. Use 3.14 as the value of π.

11. Find the volume of a cylinder if the radius is 17 cm and the height is 58 cm. Use 3.142 as the value of π.

12. Find the volume of a cylinder if the radius is 13 cm and the height is 100 cm. Use 3.142 as the value of π.

13. Find the volume of a cylinder if the radius is 15 cm and the height is 56 cm. Use 3.142 as the value of π.

14. Find the volume of a cylinder if the radius is 18 cm and the height is 28 cm. Use 3.142 as the value of π.

15. Find the volume of a cylinder if the radius is 16 cm and the height is 37 cm. Use 3.142 as the value of π.

16. Find the volume of a cylinder if the radius is 24 cm and the height is 18 cm. Use 3.142 as the value of π.

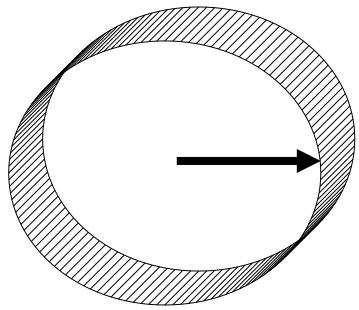
17. Find the volume of a cylinder if the radius is 25 cm and the height is 21 cm. Use 3.142 as the value of π.

18. Find the volume of a cylinder if the radius is 33 cm and the height is 55 cm. Use 3.142 as the value of π.

19. Find the volume of a cylinder if the radius is 17 cm and the height is 70 cm. Use 3.142 as the value of π.

Chapter 5

Curved Surface Area of a Cylinder



1. Find the curved surface area of a cylinder if the radius is 7 cm and the height is 7 cm. Use $22/7$ as the value of π.

2. Find the curved surface area of a cylinder if the radius is 14 cm and the height is 18 cm. Use $22/7$ as the value of π.

3. Find the curved surface area of a cylinder if the radius is 21 cm and the height is 35 cm. Use $22/7$ as the value of π.

4. Find the curved surface area of a cylinder if the radius is 42 cm and the height is 63 cm. Use $22/7$ as the value of π.

5. Find the curved surface area of a cylinder if the radius is 49 cm and the height is 34 cm. Use $22/7$ as the value of π.

6. Find the curved surface area of a cylinder if the radius is 56 cm and the height is 18 cm. Use $22/7$ as the value of π.

7. Find the curved surface area of a cylinder if the radius is 17 cm and the height is 77 cm. Use 3.142 as the value of π.

8. Find the curved surface area of a cylinder if the radius is 18 cm and the height is 87 cm. Use 3.142 as the value of π.

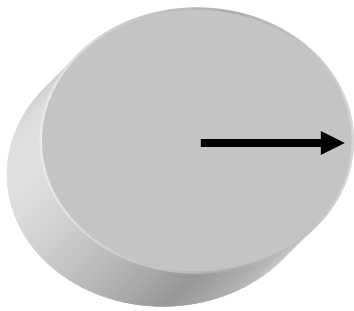
9. Find the curved surface area of a cylinder if the radius is 10 cm and the height is 125 cm. Use 3.142 as the value of π.

10. Find the curved surface area of a cylinder if the radius is 11 cm and the height is 98 cm. Use 3.142 as the value of π.

11. Find the curved surface area of a cylinder if the radius is 13 cm and the height is 45 cm. Use 3.142 as the value of π.

Chapter 6

Total Surface Area of a Cylinder



1. Find the total surface area of a cylinder if the radius is 7 cm and the height is 70 cm. Use 3.142 as the value of π.

2. Find the total surface area of a cylinder if the radius is 12 cm and the height is 56 cm. Use 3.142 as the value of π.

3. Find the total surface area of a cylinder if the radius is 17 cm and the height is 12 cm. Use 3.142 as the value of π.

4. Find the total surface area of a cylinder if the radius is 13 cm and the height is 18 cm. Use 3.142 as the value of π.

5. Find the total surface area of a cylinder if the radius is 9 cm and the height is 13 cm. Use 3.142 as the value of π.

6. Find the total surface area of a cylinder if the radius is 7 cm and the height is 33 cm. Use 3.142 as the value of π.

7. Find the total surface area of a cylinder if the radius is 21 cm and the height is 15 cm. Use $\frac{22}{7}$ as the value of π.

8. Find the total surface area of a cylinder if the radius is 42 cm and the height is 18 cm. Use $\frac{22}{7}$ as the value of π.

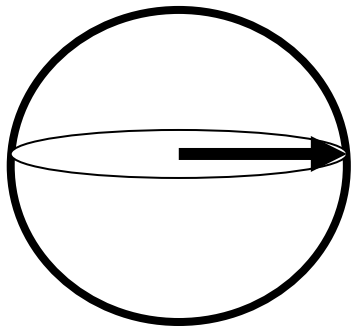
9. Find the total surface area of a cylinder if the radius is 56 cm and the height is 35 cm. Use $\frac{22}{7}$ as the value of π.

10. Find the total surface area of a cylinder if the radius is 63 cm and the height is 42 cm. Use $22/7$ as the value of π.

11. Find the total surface area of a cylinder if the radius is 70 cm and the height is 90 cm. Use $22/7$ as the value of π.

Chapter 7

Volume of a Sphere



1. Find the volume of a sphere if the radius is 21 cm. Use $22/7$ as the value of π.

2. Find the volume of a sphere if the radius is 42 cm. Use $22/7$ as the value of π.

3. Find the volume of a sphere if the radius is 63 cm. Use $22/7$ as the value of π.

4. Find the volume of a sphere if the radius is 84 cm. Use $22/7$ as the value of π.

5. Find the volume of a sphere if the radius is 105 cm. Use $22/7$ as the value of π.

6. Find the volume of a sphere if the radius is 126 cm. Use $22/7$ as the value of π.

7. Find the volume of a sphere if the radius is 147 cm. Use $22/7$ as the value of π.

8. Find the volume of a sphere if the radius is 30 cm. Use 3.142 as the value of π.

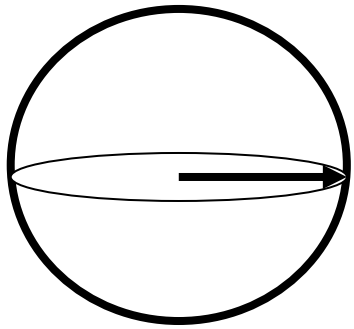
9. Find the volume of a sphere if the radius is 36 cm. Use 3.142 as the value of π.

10. Find the volume of a sphere if the radius is 42 cm. Use 3.142 as the value of π.

11. Find the volume of a sphere if the radius is 33 cm. Use 3.142 as the value of π.

Chapter 8

Surface Area of a Sphere



1. Find the surface area of a sphere if the radius is 17 cm. Use 3.142 as the value of π.

2. Find the surface area of a sphere if the radius is 12 cm. Use 3.142 as the value of π.

3. Find the surface area of a sphere if the radius is 9 cm. Use 3.142 as the value of π.

4. Find the surface area of a sphere if the radius is 11 cm. Use 3.142 as the value of π.

5. Find the surface area of a sphere if the radius is 15 cm. Use 3.142 as the value of π.

6. Find the surface area of a sphere if the radius is 17 cm. Use $22/7$ as the value of π.

7. Find the surface area of a sphere if the radius is 14 cm. Use $22/7$ as the value of π.

8. Find the surface area of a sphere if the radius is 35 cm. Use $22/7$ as the value of π.

9. Find the surface area of a sphere if the radius is 49 cm. Use $22/7$ as the value of π.

10. Find the surface area of a sphere if the radius is 63 cm. Use $22/7$ as the value of π.

11. Find the surface area of a sphere if the radius is 81 cm. Use $22/7$ as the value of π.

12. Find the surface area of a sphere if the radius is 90 cm. Use $22/7$ as the value of π.

13. Find the surface area of a sphere if the radius is 25 cm. Use $22/7$ as the value of π.

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