

EXAM 2021 - ANSWERS

Question	Answer
1. The following table shows the number of people who attended the concert in each of the five categories. Calculate the percentage of people who attended the concert in each category.	Category A: 15%, Category B: 25%, Category C: 35%, Category D: 15%, Category E: 10%
2. A car is bought for \$15,000 and sold for \$12,000. Calculate the percentage decrease in price.	20%
3. A shop has a sale where all items are 20% off. If a shirt costs \$25, how much does it cost during the sale?	\$20
4. A number is increased by 10% and then the result is decreased by 10%. What is the final value as a percentage of the original value?	99%
5. A rectangle has a length of 12 cm and a width of 8 cm. Calculate the area and perimeter.	Area: 96 cm², Perimeter: 40 cm
6. A circle has a radius of 7 cm. Calculate the area and circumference.	Area: 153.86 cm², Circumference: 43.98 cm
7. A right-angled triangle has a base of 6 cm and a height of 8 cm. Calculate the area.	24 cm²
8. A cube has a side length of 5 cm. Calculate the surface area and volume.	Surface Area: 150 cm², Volume: 125 cm³
9. A cylinder has a radius of 4 cm and a height of 10 cm. Calculate the surface area and volume.	Surface Area: 151.68 cm², Volume: 502.4 cm³
10. A cone has a radius of 3 cm and a height of 4 cm. Calculate the surface area and volume.	Surface Area: 47.12 cm², Volume: 37.68 cm³
11. A sphere has a radius of 5 cm. Calculate the surface area and volume.	Surface Area: 157.08 cm², Volume: 490.87 cm³
12. A pyramid has a square base with side length 6 cm and a height of 8 cm. Calculate the surface area and volume.	Surface Area: 108 cm², Volume: 72 cm³
13. A cylinder has a radius of 3 cm and a height of 5 cm. Calculate the surface area and volume.	Surface Area: 94.25 cm², Volume: 141.37 cm³
14. A cone has a radius of 4 cm and a height of 6 cm. Calculate the surface area and volume.	Surface Area: 85.36 cm², Volume: 100.48 cm³
15. A sphere has a radius of 6 cm. Calculate the surface area and volume.	Surface Area: 282.74 cm², Volume: 867.36 cm³
16. A pyramid has a triangular base with base length 8 cm and height 6 cm, and a height of 9 cm. Calculate the surface area and volume.	Surface Area: 104 cm², Volume: 36 cm³
17. A cylinder has a radius of 5 cm and a height of 7 cm. Calculate the surface area and volume.	Surface Area: 192.5 cm², Volume: 246.5 cm³
18. A cone has a radius of 6 cm and a height of 8 cm. Calculate the surface area and volume.	Surface Area: 150.72 cm², Volume: 241.28 cm³
19. A sphere has a radius of 8 cm. Calculate the surface area and volume.	Surface Area: 402.12 cm², Volume: 2144.66 cm³
20. A pyramid has a square base with side length 10 cm and a height of 12 cm. Calculate the surface area and volume.	Surface Area: 170 cm², Volume: 333.33 cm³

Answers to questions 1-20 are provided in the table above. For questions 21-30, the answers are: 21. 150, 22. 200, 23. 300, 24. 400, 25. 500, 26. 600, 27. 700, 28. 800, 29. 900, 30. 1000.