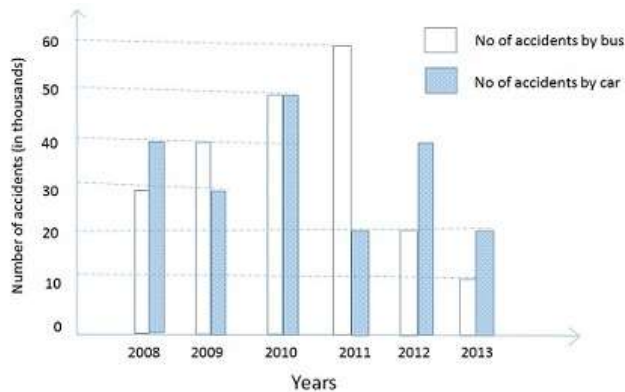


- Q1. A can do a certain job in 12 days. B is 60% more efficient than A. Then B can do the same piece of work in
- a. 8 days b. $7\frac{1}{2}$ days c. $6\frac{1}{4}$ days d. 6 days
- Q2. A rectangle with one side 4 cm is inscribed in a circle of radius 2.5 cm. The area of the rectangle is:
- a. 8 cm^2 b. 12 cm^2 c. 16 cm^2 d. 20 cm^2
- Q3. A merchant marked cloth at Rs. 50/metre . He offers 2 successive discounts of 15% and 20%. The net price/metre is :
- a. `32.50 b. `Rs. 42.50 c. `34.00 d. `40.00
- Q4. 3 brothers divided Rs. 1620 among them in such a way that the share of second is equal to $\frac{5}{13}$ of share of other two, combined. What is the share of the second one?
- a. `1170 b. `450 c. `540 d. `500
- Q5. A dealer marks his goods 20% above their cost prices. Then, he allows such a discount on the marked price so that he makes a profit of 8%. The rate of discount is:
- a. 12% b. 10% c. 6% d. 4%
- Q6. The salary of a person is reduced by 20% . To restore the previous salary, his present salary is to be increased by
- a. 20% b. 25% c. 17.5% d. 22.5%
- Q7. Two buses travel to a place at 45 km/hr and 60 km/hr respectively. If the second bus takes $5\frac{1}{2}$ hours less than the first for the journey, the length of the journey is:
- a. 900 km b. 945 km c. 990 km d. 1350 km
- Q8. If $(x + \frac{1}{x}) : (x - \frac{1}{x}) = 5:3$, the value(s) of x is/are
- a. ± 1 b. ± 2 c. ± 3 d. 0
- Q9. An exterior angle of a triangle is 115° and one of the interior opposite angle is 45° . Then the other two angles are
- a. $65^\circ, 70^\circ$ b. $60^\circ, 75^\circ$ c. $45^\circ, 90^\circ$ d. $50^\circ, 85^\circ$
- Q10. In a $\triangle ABC$, $\angle A + \angle B = 75^\circ$ and $\angle B + \angle C = 140^\circ$, then $\angle B$ is
- a. 40° b. 35° c. 55° d. 45°
- Q11. The value of $(1 + \tan^2 \theta)(1 - \sin^2 \theta)$ is
- a. 2 b. 1 c. -1 d. -2

- Q12. If $4x^2 - 12x + k$ is a perfect square, then the value of k is
a. 2 b. 9 c. 12 d. 10
- Q13. $(113^2 + 115^2 + 117^2 - 113 \times 115 - 115 \times 117 - 117 \times 113)$ is equal to
a. 0 b. 4 c. 8 d. 12
- Q14. The average of runs scored by a cricketer in his 99 innings is 99. How many runs will he have to score in his 100th innings so that his average of runs in 100 innings may be 100?
a. 100 b. 99 c. 199 d. 101
- Q15. If $r \sin \theta = 1$, $r \cos \theta = \sqrt{3}$ then the value of $r^2 \tan \theta$
a. 4 b. $\frac{1}{\sqrt{2}}$ c. $\frac{4}{\sqrt{3}}$ d. $4\sqrt{3}$
- Q16. If $p^3 - q^3 = (p - q) ((p - q)^2 + x p q)$ then value of x is
a. 1 b. -1 c. 3 d. 2
- Q17. If $(a + \frac{1}{a})^2 = 3$, then the value of $a^{18} + a^{12} + a^6 + 1$ is
a. 3 b. 1 c. 0 d. 2
- Q18. The top of a broken tree touches the ground at a distance of 15 m from its base. If the tree is broken at a height of 8 m from the ground, then the actual height of the tree is
a. 17 m b. 20 m c. 25 m d. 30 m
- Q19. In ΔPQR , straight line parallel to the base QR cuts PQ at X and PR at Y . If $PX:XQ = 5:6$, then the $XY:QR$ will be
a. 5:11 b. 6:5 c. 11:6 d. 11:5
- Q20. A man borrowed some money from a private organization at 5% simple interest per annum. He lended this money to another person at 10% compound interest per annum, and made a profit of Rs 26,410 in 4 years. The man borrowed
a. 200000 b. 150000 c. 132050 d. 100000
- Q21. From two points, lying on the same horizontal line, the angles of elevation of the top of the pillar are θ and ϕ ($\theta < \phi$). If the height of the pillar is 'h' and the two lie on the same sides of the pillar, then the distance between the two points is
a. $h(\tan \theta - \tan \phi)m$ b. $h(\cot \phi - \cot \theta)m$
c. $h(\cot \theta - \cot \phi)m$ d. $h - \frac{\tan \theta \tan \phi}{\tan \phi - \tan \theta}m$

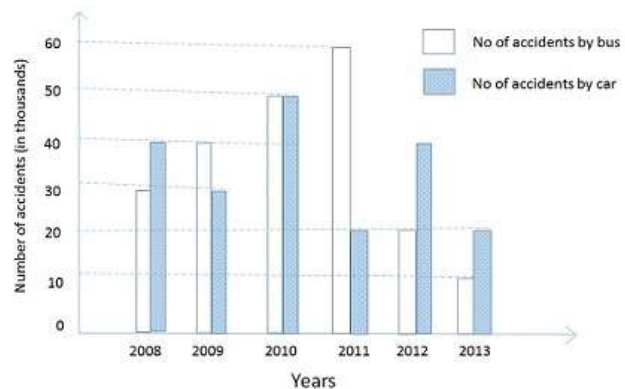
Q22. The Bar graphs represents the number of road accidents due to bus and car during the years 2008 - 2013. Study the graph and answer the questions.



The total number of road accidents in the year 2009, 2011 and 2013 combined together is

- a.** 180000 **b.** 110000 **c.** 70000 **d.** 160000

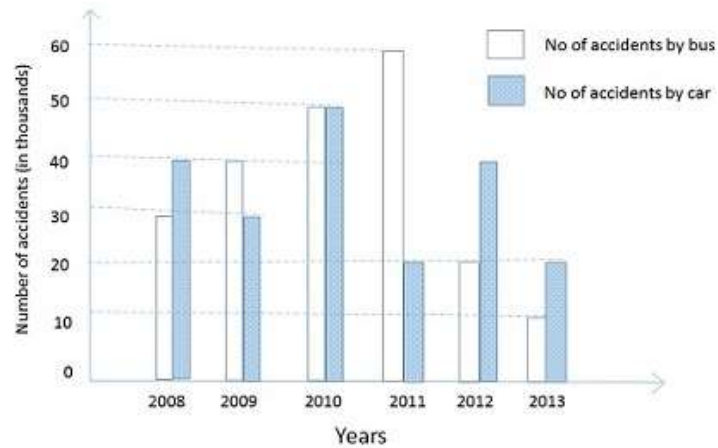
Q23. The Bar graphs represents the number of road accidents due to bus and car during the years 2008 - 2013. Study the graph and answer the questions.



The ratio of the road accidents due to Bus in the year 2008 to that by Car in the year 2012 is

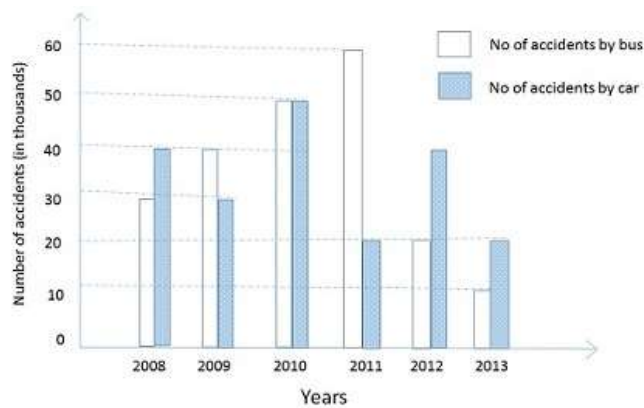
- a.** 2:1 **b.** 1:2 **c.** 2:3 **d.** 3:4

Q24. The Bar graphs represents the number of road accidents due to bus and car during the years 2008 - 2013. Study the graph and answer the questions.



The respective ratio between the accidents by cars in the year 2012, 2010 and 2009 is
a. 2:5:4 **b.** 4:5:4 **c.** 4:3:2 **d.** 4:5:2

Q25. The Bar graphs represents the number of road accidents due to bus and car during the years 2008 - 2013. Study the graph and answer the questions.



The ratio of the averages of the road accidents due to Bus to that by Car in the year 2008, 2011 and 2013 is

a. 4:5 **b.** 5:4 **c.** 5:1 **d.** 1:4

ANSWERS

- | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|
| 1. (b) | 2. (b) | 3. (c) | 4. (b) | 5. (b) | 6. (b) | 7. (c) |
| 8. (b) | 9. (a) | 10. (b) | 11. (b) | 12. (b) | 13. (d) | 14. (c) |
| 15. (c) | 16. (c) | 17. (c) | 18. (c) | 19. (a) | 20. (d) | 21. (c) |
| 22. (a) | 23. (d) | 24. (b) | 25. (b) | | | |