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Assignment 1: Percentage & Profit & Loss

Deadline: Monday 10th March
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1.   What is 25% of 200?

25

50   RIGHT

75\

100

2.   If 40% of a number is 80, what is the number?

100\

150\

200\ right

250

3.   75% of a number is 150. What is the number?

175

200 right

225\

250

4.   What is 15% of 120?

12\

15\

18\ right

20

5.   If 30% of a number is 90, then the number is:

200\

250\

300\ Right

350

6.   The price of a product increases from ₹200 to ₹250. What is the percentage increase?

20%\

25%\   Right

30%\

35%

7.   A salary increases from ₹40,000 to ₹50,000. What is the percentage increase?

20%\

25%\ true

30%\

35%

8.   The population of a town decreased from 10,000 to 8,000. What is the percentage decrease?

10%\

15%\

20%\ Right

25%

9.   A book's price drops from ₹500 to ₹400. What is the percentage decrease?

10%\

15%\

20%\ Right

25%

① $\dfrac{200 \times \overset{1}{25}}{\underset{4}{100}} = 50\%$

⑪ $\dfrac{30 \times 400}{100} = 120$ & $\dfrac{40 \times 300}{100}$

$= 120$

② $\dfrac{100 \times \overset{2}{50}}{\underset{1}{75}} = 200\%$

⑫ $40\% = 8000$

$\therefore \dfrac{100 \times 8000}{40} = \boxed{20000.}$

③ $\dfrac{100 \times \overset{2}{180}}{\underset{1}{90}} = 200\%$

⑬ $B = 100 \to 20\%$ more $120.$

$\dfrac{20 \times 100}{120} = \boxed{16.67\%}$

④ $\dfrac{\overset{6}{120} \times 15}{\underset{5}{100}} = 6 \times 3 = 18$

⑭ Initial $100 \to 25\% = 125.$

$\dfrac{25 \times 100}{\underset{5}{125}} = \boxed{20\%}$

⑤ $\dfrac{90 \times 100}{30} = 300$

⑥ $200 - 250 = 50$ increase

$= \dfrac{\overset{1}{200}}{2} \times \dfrac{50 \times 100}{\underset{4}{200}} = 25\%$

⑮ $B = 100 \uparrow 40\% = 140.$

$= \dfrac{\overset{4}{40} \times 100}{\underset{14}{140}} = 28.57\%$

⑦ $40000 \to 50000 = 10000$ change

$= \dfrac{\overset{1}{10000} \times 100}{\underset{4}{40000}} = 25\%$

⑯ Increase 20% then dear 10%
Initial 100%.

$= 100 \times 1.2 \times 0.9 = 108$

$= \boxed{8\% \text{ Incr}}$

⑧ $10000 - 8000 = 2000$ dear

$= \dfrac{\overset{1}{2000} \times 100}{\underset{5}{10000}} = 20\%$

⑰ Incr 30% then dear $20.$

$= 100 \times 1.3 \times 0.8 = 104$

$= \boxed{4\% \text{ Incr}}$

⑨ $500 - 400 = 100$ drop

$\dfrac{100 \times 100}{\underset{5}{500}} = 20\%$

⑱ $100 \times 1.25 \times 0.80$

$= 100 = \boxed{0\% \text{ Incr}}$

⑩ $600 - 450 = 150$

$\dfrac{150 \times 100}{\underset{4}{600}} = 25\%$

⑲ $100 \times 1.4 \times 0.7 = 08$

$= \boxed{2\% \text{ dear}}$

⑳ Initial no 100 so

$100 \times 1.2 \times 0.9 = 108$

$\boxed{8\% \text{ Incr}.}$

Section 3: Percentage Comparison

10. Which is greater: 30% of 400 or 40% of 300?

30% of 400\

40% of 300\

Both are equal\   Right

Cannot be determined

11. A person spends 60% of his income and saves ₹8,000. What is his total income?

₹15,000\

₹18,000\

₹20,000\ Right

₹25,000

12. If A is 20% more than B, then B is how much less than A?

20%\

16.67%\ Right

25%\

10%

13. If the price of sugar is increased by 25%, by how much should the consumption be reduced to maintain the same expense?

20%\ Right

25%\

30%\

15%

14. If A's income is 40% more than B's income, then B's income is what percentage less than A's?

28.57%\ Right

30%\

33.33%\

40%

15. **The price of an item is increased by 20% and then decreased by 10%. What is the net percentage change?**

8% increase\ Right

8% decrease\

10% increase\

10% decrease

16. **A number is increased by 30% and then decreased by 20%. What is the final percentage change?**

4% increase\ Right

8% increase\

10% increase\

12% increase

17. **If the population of a city increases by 25% and then decreases by 20%, what is the net percentage change?**

0%\   Right

5% increase\

10% decrease\

5% decrease

18. **If a price increases by 40% and then decreases by 30%, the final change is:**

2% increase\

10% increase\

10% decrease\

2% decrease   Right

19. **The salary of a person is first increased by 20% and then decreased by 10%. What is the overall percentage change?**

8% increase\   Right

10% increase\

10% decrease\

No change

20. **If an article is sold at a profit of 25%, then the selling price is what percentage of the cost price?**\

100%\

125%\   Right

150%\

175%

21. **A shopkeeper allows a discount of 10% on the marked price and still makes a profit of 8%. If the marked price is ₹500, what is the cost price?**\

₹400\   ans is 416.....

₹420\   if MP is 480 then CP 400

₹450\   : the option is available

₹460

22. **If the profit is 20% of the cost price, then what is the profit percentage on the selling price?**

16.67%\ Right

18%\

20%\

22%

23. **A product is marked at ₹1,200 and sold for ₹960. What is the percentage discount given?**

15%\

20%\ Right

25%\

30%

24. **If an article is bought for ₹500 and sold for ₹650, what is the percentage profit?**

20%\

25%\

30%\   Right

35%

㉑ 100 of $25\% = 125$

$\boxed{125\%}$

㉒ $\dfrac{500 \times 10}{100} = 50 = 480 = SP$

$= 100 \times 450 / 108 = 416.67$

㉓ $CP = 100 \uparrow 20\%. \, SP \to 120 = SP$

$\dfrac{20 \times 100}{120} = 16.67$

㉔ $1200 - 960 = 240$

$\dfrac{240 \times 100}{\underset{12}{1200}} = 20\%$

㉕ $500 \to 650 \to 150 = P$

$\dfrac{150}{500} \times 100 = 30\%$

㉖ $100 \uparrow 20\% \to 120.$

$\dfrac{20 \times 100}{120} = 16.67$

㉗ $body : g/wg = 3:2$

let all stated 100 $\xi_1 \, 3+2 = 5$

$100/5 = 20.$

bous $3x = 20 \times 8$ $\boxed{= 60\%}$

㉘ $200000 \to 280000 = 80000$

$\dfrac{80000 \times 100}{200000} = 28\%$

㉙ $6S - 3S = 30\%$

$= \dfrac{100 \times 3000}{30} = 10000$

$= \boxed{10000}$

㉚ $100 \downarrow 30\% = 70$

$\dfrac{300}{70} \times 100 = \dfrac{300}{7} = \boxed{42.85\%}$

㉛ $100 \times 1.5 \times 0.5 = 75 = \boxed{28-1}$

㉜ $100 \to 120 = \dfrac{20}{120} \times 100 \boxed{= 16.67}$

㉝ $\dfrac{90 \times 100}{3} = 300 \, \left| \, \dfrac{300 \times 60}{100} \right. \boxed{= 180}$

㉞ 75% Spend ξ_1 Save 8000

$\therefore \, 8000 = 25\%.$

$= 8000 \times 4 = \boxed{20000}$

㉟ Petrol $\to 100 \uparrow 20\% \to 120.$

$\dfrac{20 \times 100}{120} = \boxed{16.67}$

㊱ $TV \to 100 \times 1.2 \times 0.9 = 108$

$100 + 8 = \boxed{8\% \text{ indr}}$

㊲ $CP = 500 \uparrow 20\%$

$\dfrac{500 \times 20}{100} = 100 = 500$

㊳ 40% For pays $\to$ get 200

$\therefore 40\% = 220$

$220 \times 100 / 4 = 550$

㊴ $20 + 30 + 10 = 60\%.$ Save 18000

$= 18000 \times 10 / 100 = 45000$

㊵ $10000 \uparrow 10\%.$ For Per year

$= 10000 \times 1.1 \times 1.1 \times 1.1$

$= 13310$

㊶ $CP = 800$ of $25\%.$

800×1.25

$= \boxed{1000}$

25. .If A's income is 20% more than B's, then B's income is what percentage less than A's?

16.67%   RIGHT

18%

20%

25%

26. 27.If the ratio of boys to girls in a school is 3:2, what percentage of the total students are boys?

30%

40%

50%

60%   Right

27. A city's population increased from 2,00,000 to 2,50,000 in 2 years. What is the percentage increase?

20%

25%   Right

30%

35%

28. In an election, a candidate gets 65% of the total votes and wins by 3000 votes. How many total votes were cast?

5000

6000

8000

9000

10000   Right

29. The price of an article is reduced by 30%. By what percentage must the new price be increased to restore the original price?

30%

42.85% RIGHT

50%

60%

30. If a number is increased by 50% and then decreased by 50%, what is the net percentage change?

0%

25% decrease   RIGHT

50% decrease

75% decrease

31. If A is 20% taller than B, then B is shorter than A by:

16.67%   RIGHT

18%

20%

25%

32. If 30% of a number is 90, what is 60% of the same number?

120

150

180   RIGHT

200

33. A person spends 75% of his income and saves ₹5000. What is his total income?

₹15,000

₹18,000

₹20,000   RIGHT

₹25,000

34. The price of petrol increases by 20%. By what percentage should consumption be reduced to maintain the same expense?

16.67%   RIGHT

18%

20%

25%

35. The price of a TV was first increased by 20% and then decreased by 10%. What is the overall percentage change?

8% increase   RIGHT

10% increase

10% decrease

No change

36. A shopkeeper marks an item 25% above the cost price and gives a 20% discount. What is his profit/loss percentage?

0%   RIGHT

2% profit

5% profit

10% loss

37. If the cost price of an article is ₹500 and it is sold at a loss of 20%, what is the selling price?

₹350

₹375

₹400   RIGHT

₹450

38. If a salary is increased by 10% and then decreased by 10%, what is the final percentage change?

0%

1% decrease   RIGHT

1% increase

2% decrease

39. A student needs 40% marks to pass. He gets 200 marks and fails by 20 marks. What are the total marks?

500

550 RIGHT

600

40. **A man spends 20% of his salary on rent, 30% on food, and 10% on transport. If he saves ₹18,000, what is his salary?**

₹40,000

₹45,000   RIGHT

₹50,000

₹55,000

(47) SP = 720 Profit 20%

$$\frac{720}{1.2} = \boxed{600}$$

(48) CP = 500 + 15%

= 500 × 8.5 = $\boxed{425}$

(49) CP = 1500 ↓ 10%

= 1500 × 0.9 = 13500

= $\boxed{1350}$

(50) CP = 100   MP ↑ 30% → 130

$$= \frac{130 × 10}{100} = 130 - 13 = 117$$

= 117 - 100 = 17.

(51) 100 ↑ 10% ↓ 10%

= 100 × 1.1 × 0.9 = 99

= 100 - 99

= $\boxed{1\% \text{ loss}}$

(52) CP = 100 ↑ 30% ↓ 30%.

= 100 × 1.3 × 0.7 = 91

= 100 - 91

= $\boxed{9\% \text{ loss}}$

(53) $\frac{A × 15}{100} = \frac{B × 20}{100}$

$$\frac{A}{B} = \frac{20}{15} = \boxed{\frac{4}{3}}$$

(54) CP = 200   SP = 280

$$= \frac{SP1}{260} × 100 = \boxed{28\%}$$

(55) MP = 1.125 × CP

= CP = 100   MP = 128

$$= \frac{125 × 20}{100} = 25$$

= 128 - 25 = 100

= CP = SP

= $\boxed{0\% \text{ Profit}}$

41. **The cost of an item is first increased by 30% and then decreased by 30%. What is the overall percentage change?**

0%

9% decrease   RIGHT

9% increase

15% decrease

42. **43) The population of a town increases by 10% every year. If the current population is 10,000, what will it be after 3 years?**
a) 13,310   RIGHT
b) 13,500
c) 14,000
d) 14,200

43. **44) If 15% of A is equal to 20% of B, then A:B is**:
a) 3:4
b) 4:3   RIGHT
c) 3:5
d) 5:3

45) If the cost price of an item is ₹800 and the profit made is 25%, what is the selling price?
a) ₹900
b) ₹1000 RIGHT
c) ₹1050
d) ₹1100

46) If the cost price (CP) of an item is ₹200 and the selling price (SP) is ₹250, what is the profit percentage?
a) 20%
b) 25%   RIGHT
c) 30%
d) 40%

47) A man sells an article for ₹720 at a profit of 20%. Find the cost price.
a) ₹600   RIGHT
b) ₹620
c) ₹650
d) ₹700

48) A shopkeeper sells an item at a loss of 15%. If the cost price is ₹500, find the selling price.
a) ₹400
b) ₹425   RIGHT
c) ₹450

d) ₹475

49) A man purchased a cycle for ₹1500 and sold it at a loss of 10%. What was the selling price?
a) ₹1200
b) ₹1300
c) ₹1350   RIGHT
d) ₹1400

50) A trader marks his goods at 30% above the cost price and allows a discount of 10%. What is his gain percent?
a) 17%   RIGHT
b) 18%
c) 19%
d) 20%