

MATHS

BOOKS - RS AGGARWAL MATHS (HINGLISH)

PERCENTAGE

Example

1. Convert each of the following fractions into apercentage

(2) $\frac{3}{4}$

(3)

2. Convert each of the following into a fractions

(1) 36%

- (3) 37.5%
- (4) 140%



- 3. Express each of the following as a rattio
- (1) 17%
- (2) 72%
- (3) 12.5%
- (4) 225%



4. Convert each of the following ratios into a percentage

- (1) 14:25
- (2) 5:6
- (3) 111: 125
- (4) 8:5



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5. Convert each of the following into a decimal fraction:

(1) 36~%

- (2) $5.4\,\%$
- (3) $0.25\,\%\,$ %
- (4) 135%



- 6. Convert each of the following decimal into a percentage:
- (1) 0.8
- (2) 0.36
- (3)0.04
- (4) 0.008

- **7.** find
- (1) $8\% \ of 125$
- (2) $0.25 \% \ of 16$



8. what per cent of 36 is 9?

A. 25%

B. 9%

C. 4%

D. 36%

Answer: A



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9. find a number whose 8% is 6

A. 48

B. 60

C. 124

D. 75

Answer: D



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10. find

- (1) 9% of ₹ 700
- (2) $\frac{6.2}{3}\,\%$ of 75 metres
- (3) $7.5\,\%$ of 80 kg
- (4) 8% of 5 litres



- **11.** what per cent of 40 m is 16 m?
- 1 kg is 25 g?
- 3.5 litres is 700 ml?



12. What percent is 18 hours of 3 days?



13. an alloy contains 20% copper 40% zinc and the rest nickel find the grams the quanitity of each of the contents in 1 kg of alloy.



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14. out of her total monthly income Mrs
Saxena spend 30% on house rent and 60% of
the rest on household expenses. if she saved
6300 per mouth, what is her total monthly
income

15. A basket contains 350 eggs if 12% of the eggs are rotten how many eggs are good enough to be sold

A. 208

B. 308

C. 408

D. 608

Answer: B

16. Mr Narayana saves 20% of his salary if he receive 14500 per month as his salary find his monthly expenditure

A. 12000

B. 13980

C. 11600

D. none of these

Answer: C

17. in an examination 96% of the candidate passed and 50 failed. how many candidate appeared?

A. 1250

B. 1000

C. 1580

D. 1400

Answer: A

18. if 15% of the workers in a factory are females and the number of male workers is 272 find the total number of workers in the factory



19. A number is increased by 10% and then it is decreased by 10%. Find the net increase or

decrease percent.



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20. The salary of an officer is increased by 25%.

By what per cent should the new salary be decreased to restore the original salary?

A. 20%

B. 15%

C. 10%

D. 125%

Answer: A



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21. As income is 25% more than that of B.how many per cent is Bs income less than that of A?



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22. The value of a machine depreciates every year by 5%. If the present value of the machine

be Rs 100000, what will be its value after 2 years?



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23. the population of a town increases 8% annually if it present population is 142560 what was it a year ago?



24. The price of sugar goes up by 20%. By how much percent must a hours wife reduce her consumption so that the expenditure does not increase?



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25. Find the percent of pure gold is 22-carat gold, if 24 carat gold is hundred percent pure gold.



Exercise 10 A

1. convert each of the following fractions into

a per centage : (1) $\frac{47}{100}$

(2)
$$\frac{9}{20}$$

(3)
$$\frac{3}{8}$$

$$(4) \frac{8}{125}$$

(5)
$$\frac{19}{500}$$

(6)
$$\frac{4}{15}$$
 (7) $\frac{2}{3}$

$$(7) \frac{2}{3}$$

(8)
$$1.3/5$$

2. convert each of the following into a fractions

(1)
$$32\,\%$$

(2)
$$6\frac{1}{4}$$
 %

(3)
$$6.25\,\%$$

(4)
$$22.75~\%$$



3. Express each of the following as a ratio:

(1)43%

(2)36%:

(3) $7.5\,\%$

(4)125 %



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4. Convert each of the following ratios into a percentage:

(1)37:100

- (2)16:25
- (3)3:5
 - (4)5:4



- 5. Convert each of the following into decimal

Form:

- (1) 45%
- (2) 127%
- (3) 3.6%
- (4) 0.23%

6. Convert each of the following decimal into a percentage

- (1) 0.6
- (2) 0.42
- (3) 0.07
- (4) 0.005



7. find

(1) 32% of 425

(2) $\frac{16.2}{3}$ % of 16

(3) $6.5\,\%$ of 400

(4)136% of 70

(5)2.8% of 35

(6) $0.6\,\%$ of 45



- **8.** find
- (1) $25\,\%$ of 76
- (2) 20 % of ₹ 132
- (3) $7.5\,\%$ of 600 m
- (4) $\frac{3.3}{1}$ % of 90 km
- (5) $8.5\,\%$ of 5 kg
- (6) $20\,\%$ of 12 liters



9. Find the number whose 13 % is 65

- A. 400
- B. 300
- C. 500
- D. 200

Answer: C



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10. Find the number whose $6\frac{1}{4}\%$ is 2



11. What is amount is 10% more than ₹90?



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12. What amount is 20% less than ₹60?

A. ₹38

B. ₹28

C. ₹48

D. ₹58

Answer: C



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13. If 3% of x 9, Find the value of x.



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14. If 12.5% of x is 6, Find the value of x.

A. x = 52

B. x = 50

$$C. x = 48$$

D.
$$x = 49$$

Answer: C



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15. What per cent of 84 is 14?

A. 18
$$\frac{2}{3}$$
 $\%$

B.
$$16\frac{2}{3}~\%$$

C. 17
$$\frac{2}{3}$$
%

D. 15
$$\frac{2}{3}$$
 %

Answer: B



- **16.** What percentage is
- 1. ₹15 of ₹120
- 2. 36 minutes of 2 hours?
- 3. 8 hours of 2 days?
- 4. 160 meters of 4km?

- 5. 175 ml of 1 liter?
- 6. 25 paise of ₹ 4?



Exercise 10 B

1. Rupesh secures 495 marks out of 750 in his annual examination find the percentage of marks obtained by him

A. $67\,\%$

- $\mathsf{B.}\,68\,\%$
- $\mathsf{C.}~66~\%$
- D. $69\,\%$

Answer: C



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2. The monthly salary of a typist is ₹ 15625 if hi gets an increase of 12% find his new salary



3. The excise duty on a certain items has been reduced to ₹ 760 from ₹ 950 find the reduction per cent in the excise duty on that items



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4. 96% of the cost of a TV is ₹ 10464 what is its total cost?



5. 70% of the students in a school are boys and the number of girls is 504 find the number of boys in the school



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6. A ore contains 12% copper how many kilograms of the ore are required to get 69 kg of copper



 $7.36\,\%$ of the maximum marks is required to pass a test A students gets 123 marks and is declared fail by 39 marks find the maximum marks

- A.450
- B.460
- C.470
- D. 480

Answer: A



8. A fruit-sellerhad some apple he sells 40% of them and still has 420 appels find the number of appels he had originally



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9. in an examination $72\,\%$ of the total examinees passed if the number of failures is $392\,\mathrm{find}$ the total number of examinees

A. 1300

B. 1100

 $\mathsf{C.}\ 1400$

D.1500

Answer: C



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10. after deducting a commission of 5% a moped costs ₹ 15200 what is its gross value?



11. Gunpowder contains 75% of nitre and 10% of sulphur and the rest of it is charcoal find the amount of charcoal in 8 kg of gunpowder



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12. chalk contains 3% of carbon 10% of calcium and 12% of oxigen find the amount in grams of each of these substances in 1 kg of chalk



13. sonal went to school for 219 days in a full years if her attendance is 75% find the number of days on which the school was open



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14. 3% commission on the sale of the property amounts to ₹ 42660 what is the total value of property?



15. in an election there were two cadidates A and B the total number of voters in this constituency was 60000 and 80% of the total votes were polled if 60% of the polled votes were cast in favour of A how many votes were reccived by B? A. 19100

Answer: D

B. 20000

C. 21000

D. 19200

16. the price of a shirt is reduced by 12% in a discount sale if its present price is ₹ 1188 find its original price



17. the price of sweater is increased by 8% if its increased price is ₹ 1566 find the original price



18. after spending 80% of his income and giving 10% of the remainder in a charity a man has ₹ 46260 left white him find his income



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19. a number is increased by 20% and the increased number is decreased by 20% find the net increase or decrease per cent



20. the salary of an offiser is increased by 20% by what percentage should the new salary be reduced to restore the original salary?



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21. a property dealer charges commission at the rate of 2% on the first ₹ 200000, 1% on the next ₹ 200000 and 0.5% on the remaining price find his commission on the propert that has been sold for ₹ 540000

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22. nikhil's income is 20% less than that of akhil. How much per cent is akhils income more of than that of Nikhils?



23. Jhons income is 20% more than that of Mr thomas. How much per cent is the incomme of Mr thomes less than that of jhon?



24. the value of a machine depreciates 10% every year if its present value is ₹387000 what was its value 1 year ago



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25. the value of a car decrease annually by 20% if the present value of car be ₹450000 what will be its value after 2 years?



26. The population of a town increases by 10% annually. If the present population is 60000, what will be its population after 2 years?



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27. The population of a town increases by 10% annually. If the present population is 60000, what will be its population after 2 years?



Exercise 10 C

- 1. $\frac{3}{4}$ as rate per cent is:
 - A. `7.5%
 - $\mathsf{B.}\ 75\ \%$
 - $\mathsf{C}.\ 0.75\ \%$
 - D. none of these

Answer: b



2. The ratio 2:5 as rate per cent is

A. 4%

B. $0.4\,\%$

 $\mathsf{C.}\ 40\ \%$

D. 14%

Answer: c



3. 8. $\left(\frac{1}{3}\right)$ % expressed as a fraction is

A.
$$\frac{25}{3}$$

$$\mathsf{B.}\;\frac{3}{25}$$

c.
$$\frac{1}{12}$$

D.
$$\frac{1}{4}$$

Answer: c



4. If x% of 75=9, then the value of x is

A. 16

B. 14

C. 12

D. 8

Answer: c



5. What per cent of $\frac{2}{7}$ is 1/35?

A. 25~%

 $\mathsf{B.}\ 20\ \%$

C. 15~%

D. $10\,\%$

Answer: d



6. What per cent of 1 day is 36 minutes?

A. 25~%

B. 2.5~%

C. $3.6\,\%$

D. $0.25\,\%$

Answer: b



7. A number increased by 20% gives 42. the number is

- A. 35
- B. 28
- C. 36
- D. 30

Answer: A



8. A number decreased by $8\,\%$ gives 69. the number is

A. 80

B. 75

C. 85

D. none of these

Answer: B



9. An ore contains $5\,\%$ copper. How much ore is required to obtain 400g of copper?

- A. 2kg
- B.4kg
- $\mathsf{C.}\,6kg$
- D. 8kg

Answer: D



10. After deducting a commission of 10% a Tv costs ₹ 18000, What is its gross value?

- A. ₹18800
- B. ₹20000
- **c**. ₹19800
- D. none of these

Answer: B



11. On increasing the salary of a man by 25%. It

become ₹20000. what was his Original salary?

- A. ₹15000
- B. ₹16000
- c. ₹18000
- D. ₹25000

Answer: B



12. In an examination 95% of the total examinees passed. If the numbe of failures is 28. how many examinees were there?

- A. 600
- B. 480
- C. 560
- D. 840

Answer: c



13. A fruit-seller had some apples he sells 40% of them and still has 420 apples. How many apples had he in all ?

- A. 588
- B. 600
- C. 700
- D. 725

Answer: C



14. The value of a machine depreciates 10% annually. If its present value is ₹ 25000, what will be its value after 1 year?

- A. ₹27500
- B. ₹22500
- C. ₹25250
- D. none of these

Answer: b



15.8% of a number is 6. What is the number?

A. 48

B. 96

C. 75

D. 60

Answer: c



16. 60 % of 450?

A. 180

B. 210

C. 270

D. none of these

Answer: c



17. On reducing the value of a chair by 6% it become ₹ 658. The original value of the chair is

- A. ₹750
- B. ₹720
- C. ₹500
- D. ₹700

Answer: d



18. 70 % of students in a school are boys, if the number of girls is 240, how many boys are there in the school?

- A. 420
- B. 560
- C. 630
- D. 480

Answer: b



19. If $11\,\%$ of a number exceeds 7% of the number by 18, the number is

- A. 72
- B. 360
- C. 450
- D. 720

Answer: C



20. If 35% of a number added to 39 is the number itself, the number is

- A. 60
- B. 65
- C. 75
- D. 105

Answer: A



21. In an examination it is requirted to get 36% to pass. A student gets 145 marks and fails by

35 marks. The maximum marks are

- A. 400
- B.450
- C.500
- D. 600

Answer: C



22. A number decreased by $40\,\%$ gives 135. the number is

- A. 175
- B. 200
- C. 250
- D. 225

Answer: D



Test Paper

- 1. Convert:
- $1.\frac{4}{5}$ into apercentage
- 2. $\frac{7}{4}$ into a percentage
- 3. $45\,\%$ into a fraction
- 4. 105% into a fraction
- $5.15\,\%$ as a ratio
- 6. 12:25 into a percentage



2. What percent of 1kg is 125 g?

80 m is 24 m?



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3. Find

$$\frac{16.2}{3}\%$$
 of 30

`15% of ₹140.



4. Find the number (i) whose $6\frac{1}{4}$ % is 5

(ii) which is 0.8% of 45



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5. A number is increased by 10% and the increased number is decreased by 10%. Show that the net decrease is 1%



6. The value of amachine depricites at the rate of 10% per annum. if its present value is ₹ 10000. what will be its value after 2 years?



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7. The population of a town increases at 5% per annum. Its present population is 16000. what will ne its population after 2 years?



8. The price of a teaset is increased by 5%. If the inceread price is ₹ 441, what is its original price?



- **9.** $6\frac{1}{4}\%$ experssed as a fraction is
 - A. $\frac{1}{8}$
 - $\mathsf{B.}\;\frac{1}{16}$
 - $\mathsf{C.}\ \frac{4}{25}$
 - $\mathsf{D.}\;\frac{1}{25}$

Answer: B



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10. If x% of 75=12, then the value of x is

A. 8

B. 10

C. 12

D. 16

Answer: D



11. A number is increaesd bt 20% given 30. the number is

A. 150

B. 6

C. 25

D. 60

Answer: C



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12. 5% of a number is 9. the number is

A. 120

B. 140

C. 160

D. 180

Answer: D



13. If $35\,\%$ of a number added to 39 is the number itself, the number is

- A. 60
- B. 65
- C. 75
- D. 70

Answer: A



14. In an examination its is required to get 36% to pass. A student gets 160 marks and fails by 20 marks. Maximum marks are

- A. 400
- B. 450
- C. 500
- D. 600

Answer: C



15. Fill in the blanks

(4) If x decreased by 40% gives 135 than
$$x =$$

(5)
$$(11\% \text{ of x})-(7\% \text{ of x})=18 = x=.....$$



16. Write t for ture and false for each of the following:

- (1) $\frac{3}{4}$ as rate per cent is $75\,\%$
- (2) $\frac{12.1}{2}$ % experesseed as afraction is $\frac{1}{8}$
- (3) $2:5=25\,\%$
- (4) `80% of 450 =360.
- (5) 20% of 1liter =200ml

