

## **MATHS**

# BOOKS - RS AGGARWAL MATHS (HINGLISH)

## **PERCENTAGE**

## **Solved Examples**

- 1. Express each of the following as a fraction
- (i) 36% (ii ) 120% (iii ) 0.8 %

2. Express each of the following as a decimal:

(I) 80 % (ii) 8% (iii) 205 %



**3.** Express each of the following fractions as percentage:

(i) 
$$\frac{7}{25}$$
  $(ii)\frac{5}{8}$   $(iii)\frac{11}{6}$ 



4. convert the ratio 3:4 to percentage.



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**5.** Express 36% as a ratio .



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**6.** Which is largest in  $16\frac{2}{3}\%$ ,  $\frac{2}{15}$  and 0.12?



- **7.** (i) what per cent of 120 is 90?
- (ii) what per cent of 1 kg is 5 g?
- (iii) what per cent of 3.5 L is 150 mL?



- **8.** Find  $7\frac{1}{2}$  % of Rs. 2400.
  - A. 100
  - B. 120
  - C. 180

D. 160

#### **Answer: C**



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9. If 26% of a number is 65, find the number.

 $\mathsf{A.}\ 450$ 

B.350

C.250

D. 750

#### **Answer: C**



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**10.** Sarita spends 65% of her salary and the rest she saves . If she saves Rs. 2940 per month , what is her monthly salary ?

A. 7400

B. 8400

C.6400

D.5400

#### **Answer: B**



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**11.** In a class the girls are 60 % of the total number of students and the boys are 18 in number . How many students are there in the class ?

A. 35

B.25

 $\mathsf{C.}\ 45$ 

D. 55

#### **Answer: C**



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**12.** A number is increased by 20 % and then decreased by 20 % find the net increase or decrease per cent?



**13.** In an examination , one requires 40 % marks to pass , Vivek gets 185 marks and fails by 15 marks . What are the maximum marks ?

- A. 500
- B. 400
- C. 300
- D. 600

#### **Answer: A**



14. Out of her total monthly salary . Tanvy spends 30 % on house rent and 60 % of the rest on household expenditure . If she saves Rs. 10500 . What is her total monthly salary?

- A. Rs 32900
- $\mathsf{B.\,Rs}\;35000$
- C. Rs 40000
- D. Rs 37500

### Answer: D



**15.** The price of sugar goes up by 20 % by have much per cent must a housewife reduce her consumption of sugar so that the expenditure on sagar remains the same ?



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**16.** The population of a term increases by 6% annually . IF the persent population is 17490 . What was it a year ago ?

**17.** The value of a machine depeciates every year by 10 % . If the present value of the machine by Rs. 99000. what was its value last year ?



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**18.** A's income is  $60\,\%$  more than that of B , by what per cent is  $B\,'s$  income less than  $A\,'s$  ?

- A. 35.5~%
- $\mathsf{B.\,37.5\,\%}$
- C.36.5
- D.  $33.5\,\%$

## **Answer: B**



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Exercise 9 A

- 1. Express each of the following as a fraction:
- (i) 48% (ii) 220% (iii) 2.5%



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- 2. Express each of the following as a decimal:
- (i) 6% (ii) 72 % (iii) 125 %



**3.** Express each of the following as a percentage:

$$(i)\frac{9}{25}$$
  $(ii)\frac{3}{125}$   $(iii)\frac{12}{5}$ 



**4.** convert the ratio 4:5 to percentage .



**5.** Express 125 % as a ratio .



**6.** Which is largest in  $6\frac{2}{3}$  %  $\frac{3}{20}$  and 0.14?



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**7.** (i) what per cent of 150 is 96?

(ii) what per cent of 5 Kg is 200 g?

(iii ) what per cent of 2 Litres is 250 mL?



**8.** Find  $4\frac{1}{2}$  % of Rs. 3600.



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9. IF 16 % of a number is 72. Find the number.



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**10.** A man saves 18 % of his monthly income . If he saves Rs. 3780 per month . What is his monthly income ?



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11. A football team wins 7 games , which is  $35\,\%$  of the total games played , how many games were played in all ?

**A**. 19

B. 22

C. 20

D. 21

**Answer: C** 

**12.** Amit was given and increment of 20% on his salary. If his new salary is Rs. 30600. What was his salary before the increament?



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**13.** Sonal attended her school on 204 days in a full year. If her attendance is 85%, find the number of days on which the school was opened.



**14.** A's income is 20% less than that of B. By what per cent is B's income more than A's?



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**15.** The price of petrol goes up by 10%. By how much per cent must a motorist reduce the consumption of petrol so that the expenditure on it remains unchanged?

**16.** The population of a town increases by 8% annually. If the present population is 54000, what was it a year ago?



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**17.** The value of a machine depreciates every year by 20%. If the present value of the machine be 160000, what was its value last year?

**18.** An alloy contains 40% copper, 32% nickel and rest zinc. Find the mass of zinc in one kg of the alloy



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**19.** Balanced diet should contain 12% of proteins, 25% of fats and 63% of carbohydrates. If a child needs 2600 calories in

his food daily, find in calories the amount of each of these in his daily food intake.



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20. Gunpowder contains 75% nitre and 10% sulphur. Find the amount of gunpowder which carries 9 kg nitre. What amount of gunpowder would contain 2.5 kg sulphur?



**21.** Divide Rs 7000 among A, B and C such that A gets 50% of what B gets and B gets 50% of what C gcts.



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**22.** Find the percentage of pure gold in 22-carat gold, if 24-carat gold is 100% pure.



**23.** The salary of an officer is increased by 25%. By what per cent should the new salary be decreased to restore the original salary?



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Exercise 9 B

1. 
$$\frac{3}{5} = ?$$

A. 30~%

- $\mathsf{B.}\,40~\%$
- C.  $45\,\%$
- D.  $60\,\%$

#### **Answer:**



- 2. 0.8% when expressed as a decimal, is
  - A. 0.08
  - B. 0.008

C. 8

D. 0.8

#### **Answer:**



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# 3. 6:5 when expressed as a percentage is

A. 
$$83\frac{1}{5}~\%$$

$$\mathsf{B.}\ 90\ \%$$

$$\mathsf{C.}\ 120\ \%$$

D.  $6.5\,\%$ 

#### **Answer:**



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4.5% of a number is 9. Number is

A. 45

B. 90

C. 135

D. 180

#### **Answer:**



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5. What percent of 90 is 120?

A. 
$$75\%$$

$$\mathsf{B.}\ 33\frac{1}{5}\ \%$$

C. 
$$133\frac{1}{5}$$
 %

D. none of these

#### **Answer:**



**6.** What percent of 10kg is 250 g?

A. 0.25

B. 0.05

C. 0.1

D. 0.025

#### **Answer:**



**7.** 40 % of? = 240

A. 60

B.600

C.6000

D.960

Answer: B



**8.** ?% of 400=60

A. 6

B. 12

C. 15

D. 20

#### **Answer:**



**9.** (180% of ?)/2=504

A. 400

B. 480

C. 600

D. 560

## **Answer:**



**10.** 20% of Rs 800=?

A. Rs 160

B. Rs 16

C. Rs 1600

D. none of these

**Answer: A** 



**11.** In an examination, Nitin gets 98 marks. This amounts to 56% of the maximum marks. What are the maximum marks?

- **A.** 75
- B. 150
- C. 175
- D. 225

#### **Answer:**



**12.** A number is first increased by 10% and then reduced by 10%. The number

- A. does not change
- B. decreasaes by 1%
- C. increases by 1%
- D. none of these

#### **Answer:**



**13.** A period of 4 hours 30 min is what percent of a day?

A. 
$$18\frac{3}{4}~\%$$

B. 
$$20\,\%$$

$$\mathsf{C.}\ 16\frac{2}{3}\ \%$$

D. 0.19

#### **Answer:**



**14.** In an examination  $65\,\%$  of the total examinees passed. If the number of failures is 420, the total number of examinees is

- A.500
- B. 100
- C.1200
- D. 1625

## **Answer: C**



**15.** A number exceeds 20% of itself by 40. the number is

- A. 50
- B. 60
- C. 80
- D. 320

#### **Answer:**



**16.** A number decreased by  $27\frac{1}{2}\%$  gives 87.

The number is

- A. 58
- B. 110
- C. 120
- D. 135

Answer: C



# **17.** 0.05 is what percent of 20

- A. 0.25
- B. 0.025
- C. 0.0025
- D.0.02

#### **Answer: A**



18. One-third of 1206 is what percent of 134?

A. 100

B. 150

C. 200

D. 300

#### **Answer: D**



**19.** x% of y is y% of?

A. x

B. 100x

 $\mathsf{C.}\;\frac{x}{100}$ 

D.  $\frac{y}{100}$ 

#### **Answer:**



**20.** What percent of  $\frac{2}{7}$  is  $\frac{1}{35}$ ?

A. 2.5~%

 $\mathsf{B.}\,10\,\%$ 

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

D. 25~%

**Answer: B** 



- 1. Express:
- (i) 24% as a fraction.
- (ii) 105% as a decimal
- (iii) 4:5 as a percentage
- (iv) 56% as a ratio



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2. If 34% of a number is 85, find the number.



**3.** The value of a machine depreciates every year by 10%. If the present value of the machine is Rs 54000. What was its value last year?



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**4.** An alloy contains 30% copper, 42% nickel and rest zinc. Find the mass of zinc in 1 kg of alloy.



**5.** In a class, 60% of the total number of students are boys and there are 14 girls. How many students are there in the class?



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**6.** Which is largest in  $8\frac{1}{3}\%$ ,  $\frac{4}{25}$  and 0.15?



7. What percent of  $\frac{2}{9}$  is  $\frac{1}{45}$ ?



8. A number decreased by 30% gives 84. the number is



**9.** (?)% of 320 is 48?



**10.** What pecent of 45 is 54?



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**11.** A number exceeds 25% of itself by 60. the number is



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**12.** 5% of which number is 12?



# Test Paper 9 Fill In The Blanks

1. 
$$7\frac{1}{2}$$
 % of Rs 1200=\_\_\_\_



**2.** 240mL is \_\_\_\_% of 3L.



**3.** If x% of 35 is 42, then x=\_\_\_\_.

A. 120

B. 60

C. 100

D. 50

## **Answer: A**







# Test Paper 9 True And False

- 1. Write T or F
- 6% of 8 is 48.



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## 3. Write T or F

$$rac{3}{5} = 60\,\%$$



4. Write T or F

6hours=25% of a day.

A. T

B. F

C. Can not say anything

D. none of these

**Answer: A** 

