Percentage Examples | MCQs For FPSC
How To Solve Percentage Questions

Applied & Pure Mathematics MCQs

What is Percentage?

The term “percentage” was adapted from the Latin word “per centum”, which means “by the hundred”. Percentages are fractions with 100 as the denominator. In other words, it is the relation between part and whole where the value of the whole is always taken as 100.

The percentage is a fraction or a ratio in which the value of the whole is always 100. For example, if Ali scored 30% marks in his math test, it means that he scored 30 marks out of 100. It is written as 30/100 in the fraction form and 30:100 in terms of ratio.

Percentage is defined as a given part or amount in every hundred. It is a fraction with 100 as the denominator and is represented by the symbol “%”.

Calculation of Percentage

Calculating percentage means to find the share of a whole, in terms of 100. There are two ways to find a percentage:

- By using the unitary method.
- By changing the denominator of the fraction to 100.

It should be noted that the second method for calculating percentage is not used in situations where the denominator is not a factor of 100. For such cases we use the unitary method.

How to get a Percentage?

Percent is another name for indicating hundredths. Thus, 1% is one-hundredth, that means 1%=1/100=0.01.

Let’s calculate percentage using the two methods given above.

When we have two or more values that add up to 100, then the percentage of those individual values to the total value is that number itself. For example, Sally bought tiles of three different colors for her house. The details of the purchase are given in the following table.

Colour	Number of Tiles	Rate per Hundred	Fraction	Written as	Read as
Yellow	**39**	**39**	**39/100**	**39%**	**39 percent**
Green	**26**	**26**	**26/100**	**26%**	**26 percent**
Red	**35**	**35**	**35/100**	**35%**	**35 percent**

Since the total number of items adds up to 100, the percentages can be easily calculated.

What if the total number of items do not add up to 100? In such cases, we convert the fractions to equivalent fractions with the denominator as 100.

For example, Emma has a bracelet which is made up of 20 beads of two different

colours, red and blue. Observe the following table which shows the percentage of red and blue beads out of the 20 beads.

Emma's sisters, Nora and Jenny, calculated the percentages as well, but in different ways.

Nora used the unitary method. Using the unitary method for calculating percentage, we say that out of 20 beads, the number of red beads are 8. Hence, out of 100, the number of red beads will be 8/20 × 100= 40%.

Jenny converted the fraction 8/20 into an equivalent fraction 40/100 by multiplying the numerator and denominator with 5/5.

So, 8/20= (8×5)/(20×5)

= 40/100
= 40%

Formula to Calculate Percentage

The percentage formula is used to find the share of a whole in terms of 100. Using this formula, you can represent a number as a fraction of 100. If you observe carefully, all the three ways to get percentage shown above can be easily calculated by using the formula given below:

Percentage= (Value/Total Value)×100

Percentage Difference Between Two Numbers

Percentage difference is the change in the value of a quantity over a period of time in terms of percentage. Sometimes we need to know the increase or decrease in some quantity as percentages, which is also referred to as Percentage Change. For example, an increase in population, a decrease in poverty, and so on.

We have the formula to show the change in quantity as a percentage. There are

two cases that might arise while calculating percentage difference and those are:

- Calculate percentage increase
- Calculate percentage decrease

How to Calculate Percentage Increase?

Percentage increase refers to the perchange change in the value when it is increased over a period of time. For example, population increase, increase in the number of bacteria on a surface, etc. Percentage increase can be calculated by using the following formula:

Percentage Increase= (Increased Value-Original value)/Original value × 100

How to Calculate Percentage Decrease?

Percentage decrease refers to the perchange change in the value when it is decreased over a period of time. For example, decrease in the level of rainfall, decrease in the number of Covid patients, etc. Percentage decrease can be calculated by using the following formula:

Percentage Decrease= (Original value-Decreased Value)/Original Value × 100

Points to Remember:

- To find the percentage of a whole, work out the value of 1% and then multiply it by the percent we need to find.
- An increase or decrease in any quantity can be expressed as a percentage.
- Fractions can be converted into percentages and vice-versa.
- Percentages are reversible. For example, 25% of 40 is the same as 40% of 25.

More on Percentage

How Do you Minus a Percentage?

To subtract some percentage from a number, just multiply that number by the percentage you want to retain. For example, to subtract 10% of 500, just multiply 90% by 500

How to Calculate the Average Percentage?

Follow the steps to calculate the average percentage: The average percentage can be calculated by dividing the total items represented in percentages by the overall total of items. In other words,

Calculate the average percentage by dividing the total items represented by percentages by the overall total of items

- Convert the percentage into decimal numbers. For example, to calculate the average of 30% of 50 and 20% of 80, we convert them into their decimal forms that are 0.3 and 0.2 respectively.
- Write the number represented by each decimal number. In this case, it will be 0.3×50=15 and 0.2×80=16 respectively.
- Add the numbers thus obtained. (15+16=31).
- Find the sum of sample sizes. (50+80=130).
- Divide the total number obtained in Step 3 by the number obtained in Step 4. So, 31/130=0.24. This decimal number represents 24% which is the required average percenatge.

How Do we Calculate Percentage?

Percentage can be calculated by dividing the value by the total value, and then multiplying the result by 100. The formula used to calculate percentage is: (value/total value)×100%.

What is Percentage of a Number?

Percentage of a number is the value of the number out of 100. For example, in a class there are 26 girls and 24 boys. So, the percentage of girls in the class is 52%, which means out of 100, 52 are girls.

What is Percentage Change?

Percentage change is the change in percentage from the old value to the new value. It is calculated using the following formula: Percentage change= (difference between old and new values/old value)×100%

What are Real Life Examples of Percentage?

Some real life examples of percentages are listed below:

- Your phone's or laptop's battery percentage.
- Percentage of nutrients on a food packet.
- Composition of oxygen, carbon-dioxide, nitrogen etc in air.
- Percentage of your marks in a test.
- Comparison of number of patients recovered from Covid between two or more cities is done in percentage etc.

Can Percent be More Than 100?

Yes, the percentage can be more than 100 when we have a value that is larger than the total value.

What is the Formula for Percent into Decimal?

To convert per cent to decimal, drop the per cent symbol (%), divide it by 100, and write the decimal form of the fraction thus obtained.

PERCENTAGE MCQs

Percentage MCQs are very important for CSS, PMS & All Other Competitive Exams. Almost, every testing agency asks many questions in their MCQs test from the portion of Percentage. Therefore, one should practice a lot of the questions of the Mathematics different parts, Aptitude questions and of percentage questions.

Percentage Examples – MCQs For FPSC

Mathematics MCQs by CSS MCQs

Important Questions of Percentage

Here, some important percentage questions are given with their solutions

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What is 2% of 400?

A. 40
B. 15
C. 8
D. 12

Tax Inspector-16

What is 3.4% in fraction?

A. 34/10
B. 34/100
C. 34/1000
D. 340/100

Tax Inspector-18 (Lhr)

If 70% of students in a school are boys and the number of girls is 504, the number of boys is:

A. 1630
B. 1176
C. 1276
D. None of these

Labour Officer-16

30% of 100 is equal to 3% of:

A. 300
B. 500
C. 750
D. 1000

Tax Inspector-18 (Fsd)

If 30% of a number is 12.6. Find the number.

A. 45
B. 38
C. 40
D. 42

Tax Inspector-18 (Fsd)

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18 is 75% of which value?

A. 34
B. 24
C. 22
D. 20

Asst. AH-18

Adil's daily wage is Rs. 250 after increment of 25%. What was his daily wage before the increment.

A. Rs. 150
B. Rs. 200
C. Rs. 180
D. None of these

AD Labour Welfare-17

A number is increased by 20% and then decreased by 20%, the final value of the number

A. Does not change
B. Decreased by 2%
C. Increased by 4%
D. Decreased by 4%

Labour Officer-16/SI PCD-17

Consider linking to these articles:

Depreciation is_____.(Opens in a new browser tab)

Number of surah in 29th para are?(Opens in a new browser tab)

The total number of Cingula in each dentition is_____?(Opens in a new browser tab)

The number of the guests at the party _____ amazing.(Opens in a new browser tab)

If sum of two numbers is 30 and their difference is 8, What is their product?(Opens in a new browser tab)

What number comes next in this series? 126,225,123,169,120,121,117,___?(Opens in a new browser tab)

Aegean Airline is an Airline of which of the following state?(Opens in a new browser tab)

In this series, which number comes next? 5, 10, 6, 11, 7, 12, 8, 13

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