hp calculators

HP 17bII+ Percentages

Taking a Percentage

Adding and Subtracting a Percentage Result

Percentage Change

Percent of a Total

The percentage functions of the HP 17bII+ simplify the calculation of numbers involving percentage and decimals, enabling you to come up with percentage answers easily and quickly. Let's go through some percentage calculations, using both the Algebraic and RPN modes.

Question: What is 15% of 400?

        Algebraic keystrokes: '400,' 'x,' '15,' '%,' '='

        RPN keystrokes: '400,' 'ENTER,' '15,' '%'

                        Answer: "60"

                        Note that in both modes you are putting in the '15' as a whole number. You don't have to move the decimal point. The percentage key that follows takes care of that.

Question: What is the result of taking 15% of 400 and then subtracting the answer from the 400?

        Algebraic: '400,' '-,' '15,' '%,' '='

        RPN: '400,' 'ENTER,' '15,' '%,' '-'

        Answer: "340"

        The advantage of this use of the percentage function is that once you have calculated the percentage answer it is not necessary to key in the '400' again in order to subtract the 15% answer from it.

        This is especially helpful when you are working through a procession of numbers, taking percentages and then adding, for example, the result to the number from which you took the percentage.

        Let's say a business owner projecting sales increases for the next three years hopes for a 10, then 15, then 20% increase over each previous year. If the owner just enjoyed a $100,000. sales year, the sales projected for the next three years could be easily calculated as follows:

Algebraic:

First year: '100000,' '+,' '10,' '%,' '='

Answer: $110,000.

Second year: Keep the "110,000." in the display and press '+,' '15,' '%,' '='

Answer: $126,500.

Third year: Keep the "126,500." in the display and press '+,' '20,' '%,' '='

Answer: $151,800.

RPN:

First year: '100000,' 'ENTER,' '10,' '%,' '+'

Answer: $110,000.

Second year: Keep the '110000' in the display and press '15,' '%,' '+'

Answer: $126,500.

Third year: Keep the "126,500." in the display and press '20,' '%,' '+'

Answer: $151,800.

Question: What is the percentage change in going from 25,000. to 34,000.?

Both modes: Start out in the main menu and press:

'BUS,' '%CHG,' '25000,' 'OLD,' '34000,' 'NEW,' '%CH'

Answer: 36 (percent, that is)

The number that goes in the 'OLD' register is that number from which you are measuring the percentage change. If you wanted to measure the percentage change from 34,000. to 25,000, you would reverse the numbers going in 'OLD' and 'NEW':

'34000,' 'OLD,' '25000,' 'NEW,' '%CH'

Answer: -26.47

The negative percentage indicates, of course, that a loss has occurred in going from 34,000. to 25,000.

Question: What is 50 expressed as a percentage of 300?

Both modes: Start out in the main menu and press:

'BUS,' '%TOTL,' '300,' 'TOTAL,' '50,' 'PART,' '%T'

Answer: 16.67 (again, this is percent)

The "TOTAL" number is that number of which the percentage is being taken. In the above example the total number is the '300.'