

Finding the Whole

Objectives:

- To find the “whole/of”, using the percent box, when the part and percent are known

Outcomes:

- To complete the “Finding the Whole” worksheet with at least a 90% score

Warm-Up:

The percent box takes the mystery out of where to put each of the numbers in a percent problem. It is an excellent tool for visual learners. It is easy to remember and easy to use for all types of percentage problems. The student does not need to do percent and fraction conversions when using this box.

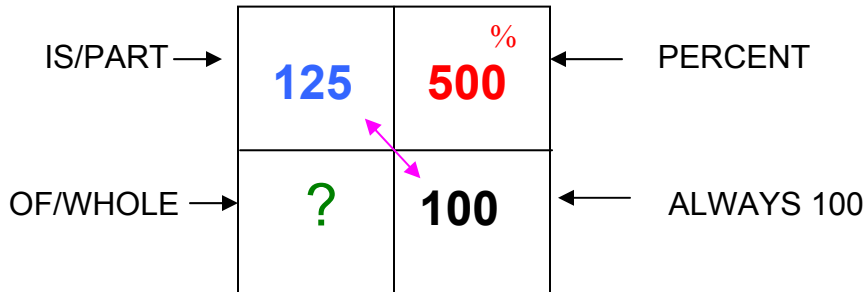
New Instruction:

The main box is divided into four squares. The upper left square is marked “is/part”. The lower left square is marked “of/whole”. The upper right square is marked “percent”, and finally the bottom right square is always filled in with “100”. After placing the numbers in the appropriate squares, cross-multiply the numbers in the two filled-in squares that are diagonal from each other. Divide the answer by the leftover number.

Is/Part	%
Of/Whole	100

FINDING THE WHOLE

125 is 500% of what number?



1. Fill-in squares with **part**, **100** and **percent**.
2. **Cross-multiply numbers** in two filled-in squares.
 $125 \times 100 = 12,500$
3. Divide the result (**12500**) by the **extra number**
4. $12,500 \div 500 = 25$

ANSWER: 125 is 500% of 25

Feedback and Review:

Do these practice problems using the percent box.

1. 33 is 0.6% of what number?
2. 12% of what number is 18?
3. \$180 is 30% of what number?
4. 62 ½% of what number is 15?
5. 25% of what number is \$10.56?
6. Mrs. Smith sold 80% of her land when she retired. If she sold 160 acres how much did she own before she retired?
7. The population of the small town grew to 1500. This is 120% of the population last year. What was the number before the new growth?

8. Kenny now weighs 210 pounds. This is 105% of what he weighed before the holidays. What did he weigh before the holidays?
9. The adult education center received a discount on a computer. They purchased the computer for \$750. This was 90% of the original price. How much would have the computer cost without a discount?
10. The literacy program serves 36 males a month. If 60% of the people served are male, what is the total number of clients served per month?

Answers:

1. 5500
2. 150
3. \$600
4. 24
5. \$42.24
6. 200
7. 1250
8. 200
9. \$833.33
10. 60

Transfer of Knowledge or Skills:

Real life application:

To practice what you have learned, get a newspaper and review the sales ads. Find sales that are missing the “whole” or “original” price and figure out the problem using the percent box.