PERCENT REFERENCE SHEET

The "IS" in the problem

The "OF" in the problem

$$\frac{PART}{WHOLE} = \frac{PERCENT}{100}$$

The "%" in the problem

Always stays "100"

Proportion Method
Finding the Part, Whole, or Percent

STEP 1. Determine whether you are being asked to find the part, whole or percent.

Find the PART	Find the WHOLE	Find the PERCENT
What is 20% of 80? _____ is 20% of 80? 20% of 80 is _____?	16 is 20% of what number? 20% of _____ is 16?	16 is what percent of 80? What % of 80 is 16?

STEP 2. Substitute the numbers given in the problem into the proportion formula. Use a variable (X) for the unknown that you are being asked to find.

Find the PART	Find the WHOLE	Find the PERCENT
$\dfrac{X}{80} = \dfrac{20}{100}$	$\dfrac{16}{X} = \dfrac{20}{100}$	$\dfrac{16}{80} = \dfrac{X}{100}$

STEP 3. Then cross-multiply the numbers that are given and divide that answer by the remaining number.

$\dfrac{X}{80} = \dfrac{20}{100}$	$\dfrac{16}{X} = \dfrac{20}{100}$	$\dfrac{16}{80} = \dfrac{X}{100}$
Cross Multiply the two numbers given: 80 x 20 = 1600 Now divide that answer by the number left over: 1600 ÷ 100 = 16 ANSWER = 16	Cross Multiply the two numbers given: 100 x 16 = 1600 Now divide the answer by the number left over: 1600 ÷ 20 = 80 ANSWER = 80	Cross Multiply the two numbers given: 16 x 100 = 1600 Now divide the answer by the number left over: 1600 ÷ 80 = 20 ANSWER = 20%

FIND THE PART, WHOLE OR PERCENT

ANSWERS:

1. What is **20%** of **60**?

2. **12** is **75%** of what number?

3. **6** is what percent of **8**?

4. **8** is **40%** of what number?

5. **12.5%** of what number is **24**?

6. What is **33%** of **400**?

7. What is **72%** of **32**?

8. **12** is **50%** of what number?

9. What is **87.5%** of **150**?

10. **25** is what percent of **30**?

11. **60** is **45%** of what number?

12. **12** is what percent of **20**?

13. **250%** of what number is **1250**?

14. **9** is **37.5%** of what number?

15. What is **0.25%** of **30**?

16. **15** is what percent of **40**?

17. What percent of **60** is **75**?

18. **45** is **60%** of what number?

19. What is **150%** of **30**?

20. What is **41%** of **325**?

1. _____
2. _____
3. _____
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19. _____
20. _____