



Making Sense of Percents

Percents Pretest

Percents are a key topic in middle school math. A strong understanding of percents, and their conversion between fractions and decimals, will smooth the path for your child as he progresses through high school classes including; consumer math, algebra 1 and 2, chemistry, physics and economics which all involve calculating percent equations.

You can print this Percents Pretest and let your child complete it to see how well he understands and can work with percents.

Directions for the student: Take this twenty question quiz. It does not require a calculator, but you may use one if you need to. Then go to the Answer Key and compare your results. Good luck!

Questions 1-6: convert the following percents, fractions and decimals. (Fill in the blanks):

Problem number	Percent	Fraction	Decimal
1	4%		
2	12.1%		
3			0.35
4			1.6
5		$\frac{1}{8}$	
6		$\frac{5}{9}$	

Solve the following Percent equations:

7) $50\% \cdot 64 =$

8) $p \cdot 20 = 5$

9) $p \cdot 225 = 99$

10) $25\% \cdot x = 46$

11) $6\frac{1}{2}\% \cdot 400 = x$

12) $45\% \cdot x = 16.2$

Now try some Percent Word Problems:

13. Jeanne earns \$1,200 per week and pays 4% state income tax. How much state income tax does she pay each week?

14. 60% of the people in the world live in Asia. If 3.6 Billion people live in Asia, how many are there in the world?

15. There were 1040 students at Sunnyville Junior High last year. This year there are 5% more. How many students are there now?
16. The number of visitors to the SpidersAreInteresting.com web site was 350 last year and 329 this year. What percentage decrease is this?
17. A \$45.00 sweater is on sale at 35% off. What's the sale price?
18. It costs me \$46 to fill my minivan with gas. That's 15% more than last year! What did it cost last year?

- 19. A store pays \$60.00 for a coat and marks it up 150%. Later the store puts it on sale 40% off. What is the sale price?**
- 20. A lawyer, who was asked to collect \$16,000, managed to collect 75% of the claim, and charged 15% of the amount collected for his services. How much did the lawyer turn over to his client?**