

Exploring the World of Math

Name: _____ Date: _____

Percentages

- Find the following percentages of these numbers
 - $\frac{3}{4}$
 - $\frac{2}{3}$
 - 1.51
 - 0.0625
 - $(1125-231) \div 3^5$
- The department store is offering an 80% discount on all purchases. Calculate the cost of the following:
 - 3 blouses for \$14.99 each
 - 2 sweaters for \$19.99 each
 - 4 pairs of pants for \$25 each
 - 3 pairs of shoes for \$49.99 each
 - 2 sets of party plates for \$15
- The store is offering Department Store bonus certificates for purchases exceeding \$100. Did we achieve that amount in problem 2? If not how much more 80% discounted items do we have to buy?

Retirement

- Our employer will match 50% for retirement investments up to \$1000 per year, so we elect to put that much into the account. What will our total investment be at the end of the first year?
- Our employer will match 50% for retirement investments up to 6% of our salary per year, so we elect to put that much into the account. This year we made \$33,525.45. What will our total investment be at the end of the first year?
- Our employer will match dollar for dollar for our retirement investment up to 5% of our salary per year, so we elect to put that much into the account. This year we made \$36127.08. What will our total investment be at the end of the first year?
- We are deciding to work at another company without an employee matching program. We will make \$18.50 an hour at the job without employee matching. The 5% company paid \$17.37 per hour. Is the \$18.50 job a better offer?

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Actual Cost of Products

8. Compute the following finding the percentages of the Sold For cost from the producer to the Selling Price for the consumer.

Product	Material	Labor	Equipment	Total Cost	Sold For	Avg Selling Price	Percentage
Air Pegasus ¹	\$9.00	\$2.75	\$3.00	\$14.75	\$20.00	\$78.36	
Ear of Corn	\$0.01	\$0.02	\$0.02	\$0.05	\$0.16	\$0.25	
Family Car	\$1255	\$2100	\$1600	\$4955	\$10000	\$22000	
Chicken Burrito	\$0.75	\$0.58	\$0.15	\$1.48	---	\$6.50	
Coffee	\$0.03	\$0.23	0.08	0.34	---	\$1.50	

Golden Ratio Review

9. The box of Kellogg's Raison Bran Crunch is $7\frac{3}{4}$ inches wide. The height of the box is $12\frac{3}{8}$. What is the ratio of height to width? What percent of this ratio to the golden ratio of 1.618:1?
10. The hardbound W.E.B. Griffin book Victory and Honor is $5\frac{3}{4}$ inches wide. The height of the book is $8\frac{15}{16}$. What is the ratio of height to width? What percent of this ratio to the golden ratio of 1.618:1?
11. The Viewsonic widescreen monitor is $16\frac{1}{4}$ inches wide. The monitor of the book is $10\frac{1}{8}$. What is the ratio of height to width? What percent of this ratio to the golden ratio of 1.618:1?

Homework

1. Find the producer's and consumers' cost for three products and calculate the percentage.

Product	Material	Labor	Equipment	Total Cost	Sold For	Selling Price	Percentage

¹ Isho Kenmei, The Actual Cost to Make a Pair of Nike Shoes, May 10, 2011, WordPress.org, September 5, 2011. <<http://www.sneakersanonymous.com/footbyfoot/?p=64>>