

GroupWork 2.7
6-25-12

Group Members _____

NOTE: These questions are borrowed from Beginning Algebra by Elayn Martin-Gay

1. Find the following quantities:

- (a) Find 16% of 70 11.2
 (b) Find 88% of 1000 880
 (c) 87 is what percent of 436? 19.95%
 (d) 126 is 35% of what number? 360
 (e) 45 is 25% of what number? 180

2. An automobile dealership recently reduced the price of a used compact car by 8%. If the price of the car before the discount was \$18,500, find the discount and the new price..

Discount \$ 1,480
 New Price \$ 17,020

3. A music store is having a 25% off sale on all new albums. Find the discount and sale price if a newly released album costs \$16.

Discount \$4
 Sale Price \$12

4. Consider two right triangles: Triangle A has legs of length 3 and 4. Triangle B has legs of length 6 and 8. So we see that B is obtained from A by doubling the leg length. By what percent did we increase the leg length to obtain B? By what percent does the area of A increase when we double the leg lengths?

SKIP

5. How much of an alloy that is 20% copper should be mixed with 200 oz. of an alloy that is 50% copper in order to get an alloy that is 30% copper?

Amount	% Copper	Amount of Copper
x	.20	$.20x$
200	.50	100
$200+x$.30	$.30(200+x)$

$$.20x + 100 = .30(200+x)$$

$$x = 400 \text{ oz}$$

6. How much water should be added to 30 gallons of a solution that is 70% antifreeze in order to get a mixture that is 60% antifreeze?

Water:

Amount	% Antifreeze	Amount of Antifreeze
x	0	$0x = 0$
30	.70	21
$30+x$.60	$.60(30+x)$

$$0 + 21 = .60(30+x)$$

$$x = 5 \text{ gallons}$$