



1 – Finance

- 12) Each time a song is played on the radio, the record company and the songwriter are paid a royalty of \$0.30. Of the total, 75% goes to the company and the rest to the writer. If on a network of 50 radio stations, a certain song is played 4 times a day during the first week and then 20 times a day for the next three weeks, how much does the network owe in royalties for the four weeks? How much do the record company and the songwriter receive each?

A fundamental knowledge of basic proportions and percents is very helpful on the Graduate Record Examination (GRE). The questions below are similar in structure and content to those appearing in the quantitative section of the GRE. The directions for problems 13 through 15 are: Each of the following problems contains two quantities labeled A and B. Determine the relationship between the sizes of the quantities. Answer (A) if  $A > B$ , (B) if  $A < B$ , (C) if  $A = B$ , or (D) if the relationship between A and B cannot be determined. **Explain your reasoning.**

- 13) A: 6% of 9                      B: 9% of 6
- 14) A hardware store purchased hammers for \$7 each and sold them for 25% above cost.  
A: \$9.10                      B: The price at which the store sold a hammer.
- 15) A: 30% of 50                      B:  $\frac{3}{10}(50)$

The GRE also contains multiple choice questions similar to problems 16 through 20 below. Explain the reason for your answer.

- 16)  $0.75\% =$   
a)  $\frac{3}{4}$                       b)  $\frac{3}{40}$                       c)  $\frac{3}{400}$                       d)  $\frac{3}{4000}$                       e)  $\frac{3}{40000}$
- 17)  $\frac{3}{4}\% =$   
a)  $\frac{3}{4}$                       b)  $\frac{3}{40}$                       c)  $\frac{3}{400}$                       d)  $\frac{3}{4000}$                       e)  $\frac{3}{40000}$
- 18) A widow received 50% of her husband's estate, and each of her four sons received 25% of the balance. If the widow and one of her sons received a total of \$100,000 from the estate, what was the amount of the estate?  
a) 125,000                      b) 140,000                      c) 160,000                      d) 200,000                      e) 300,000
- 19) The estate of a retired banker amounted to \$750,000. The will gave the widow \$300,000 and divided the rest evenly between 3 children. What percent of the estate did each child receive?  
a) 15%                      b) 18%                      c) 20%                      d) 22%                      e) 25%
- 20) If \$1000 is deposited into an account paying 5 percent interest in one year, how much interest is earned?  
a) \$5                      b) \$50                      c) \$100                      d) \$250                      e) \$500