

MATH

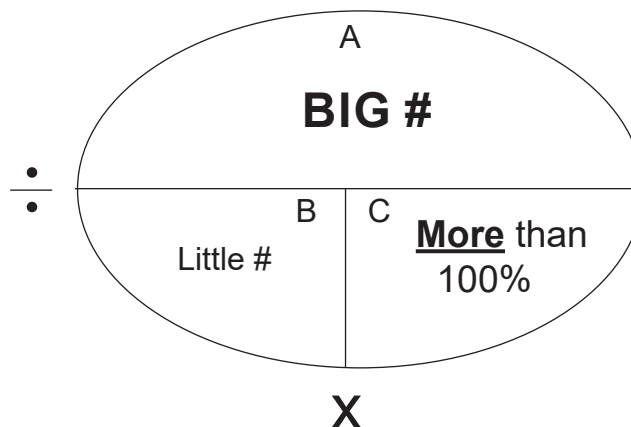
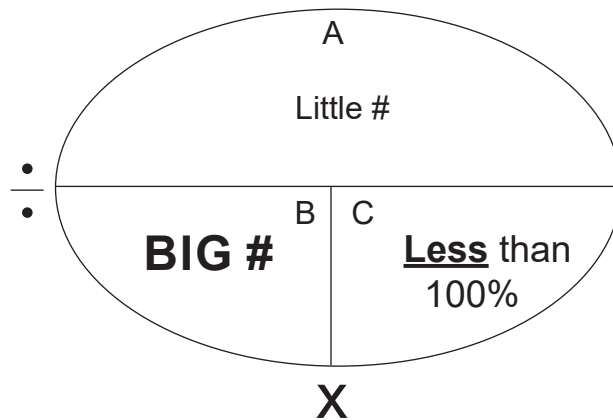
(Approximately 0 to 2 math questions on the typical Salesperson Exam)

There has been a remarkable decline in the number of math questions asked on the Salesperson Exam. The range is currently about 0-2 math questions on the Salesperson Exams. At this time most Salesperson Exams have no math. **Please remember - This is Not a Guarantee.** The Department of Real Estate can add math questions to the exam at any time.

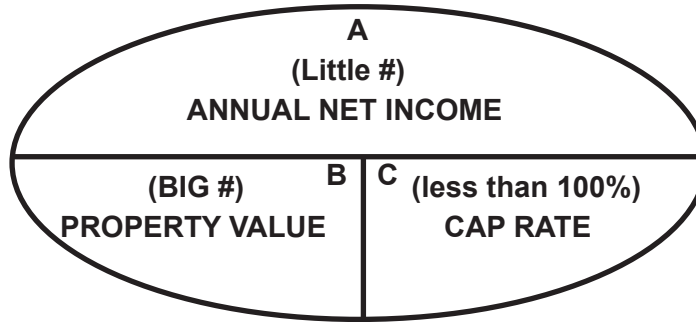
I. **CALCULATORS** - You may no longer bring your own calculator to the state exam. The Department of Real Estate will provide you with a basic calculator to use.

II. CIRCLE DIAGRAM Rules

1. Percentage always goes in box "C."
2. Little number in "A," big number in "B," where "C" is less than 100%.
3. Little number in "B," big number in "A," where "C" is more than 100%.
4. The "A" number always gets divided by the other number.
5. Always annualize the figures.

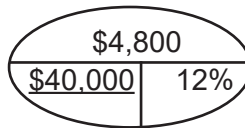


**CAPITALIZATION
APPRAISAL
PROBLEMS**



1. The net income of an apartment building went down \$400 per month when a freeway was built nearby. If investors demand a 12% capitalization rate for this area, how much has the property lost in value?

- A. \$3,333
- B. \$20,000
- C. \$36,000
- D. \$40,000

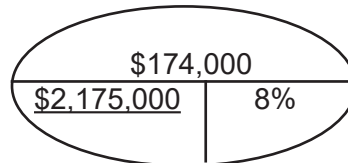


ANS. 1 D

- (1) $\$400 \times 12 = \$4,800$.
- (2) $\$4,800$ divided by 12% = \$40,000.

2. Leonard, an intelligent real estate investor, wants to purchase a 40-unit apartment building that has an annual net income of \$174,000. How much would he be willing to pay for the building, if he uses a 8% capitalization rate?

- A. \$1,400,000
- B. \$1,650,000
- C. \$1,985,000
- D. \$2,175,000

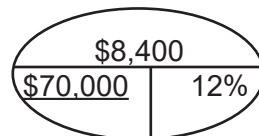


ANS. 2 D

- (1) $\$174,000$ divided by 8% = \$2,175,000.

3. A small income property generates a monthly gross income of \$1,000. Over the last five years it has been vacant for three months. The annual expenses are \$3,000. If an appraiser applied a 12% capitalization rate to this property, what would be the value?

- A. \$58,000
- B. \$65,000
- C. \$70,000
- D. \$90,000



ANS. 3 C

- (1) $\$1,000 \times 12 = \$12,000$ annual gross income.
- (2) 12 months x 5 years = 60 months.
- (3) 3 months vacancies divided by 60 months = .05 = 5% vacancy factor.
- (4) $\$12,000$ Annual gross income x 5% vacancy factor = \$600 annual vacancy loss.
- (5) $\$12,000 - \$600 = \$11,400$ adjusted gross income.
- (6) $\$11,400$ adjusted gross income - \$3,000 annual expenses = \$8,400 annual net income.
- (7) $\$8,400$ divided by 12% = \$70,000.