## HOW <br> TO <br> USE <br> THE PICKETT <br> COSTIMATOR

<br>Replacement Cost<br>Loan Value<br>Square Footage<br>Commissions<br>Comparisons and ratios

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## PICKETT REAL ESTATE COSTIMATOR

The Pickett Costimator is an accurate precisionmade pocket slide rule, designed for use by all persons concerned with the Real Estate profession. Listed below are instructions for making a number of instant calculations on this instrument. After you familiarize yourself with its scales you will find that there are many more applications to which this tool can be applied.

## I. The Basic Replacement Cost Estimate.

The Costimator is designed to be easily read and manipulated. To compute the depreciated replacement cost of a building, start at the top scale and work downward as you would read a book. On Scale 1 read the square footage of the building. Slide directly beneath that figure (on Scale 2) the cost per square foot required to replace this building. Note that Scale 2 is numbered from right to left. The indicator arrow on Scale 3 now points to the estimated replacement cost of the building (Scale 4). To depreciate this cost figure, read on Scale 3 the percentage of depreciation you wish to take and the resultant depreciated dollar cost of the building will fall directly below on Scale 4.
The transparent finder or cursor which is clipped to the body of the tool is to aid in "remembering" a figure. It also helps to obtain better accuracy. Therefore, where the above instructions say "read," use the vertical finder line to "fix" your number. You will find it then becomes easier to define-your position on the opposite scale.

As on a simple ruler, every mark is not numbered. The Costimator deals primarily with dollars. Therefore, the marks between numbers are basically in tenths. Where a specific mark or reading is not numbered, as on a ruler, figure the proportionate distance between the two nearest numbers or marks.

Example: What is the depreciated replacement cost of a building of 1600 square feet which would cost $\$ 11.00$ a square foot to replace

## VII. Multipliers and Ratios.

Here are just two simplified examples of the use of the Costimator in arriving at a fast multiplier and computing a ratio. Familiarity with this tool will yield many additional applications suited to your own particular field. Questions regarding its use or specific calculations that might be possible will be promptly answered.

Example: If a property sold for $\$ 190,000$, and its gross annual income averaged $\$ 27,000$ approximately how many times its gross income did it sell for?

Set the indicator arrow on $\$ 190,000$ (Scale 4) and divide by $\$ 27,000$. Set the finder line over 27,000 (Scale 1) and the answer is read on Scale 2. (Approximately 7 times.)

Example: One method of comparing the prices of comparable homes is to consider the "sold per square foot" ratio. A house containing 1540 square feet recently sold for $\$ 21,500$. What did it sell for per square foot? Set the indicator arrow on $\$ 21,500$ (Scale 4) and divide by 1540 square feet (Scale 1). The answer reads approximately $\$ 14.00$ per square foot on Scale 2.
The value of the Costimator is in its speed and accuracy, its handiness, and the visual concept it gives to every real estate problem. It is an instrument which lets you literally "see" what you are computing. After using the Costimator for a few days, you will find that it has become an irreplaceable item in your business, just as the conventional slide rule is a necessity for the engineer.

## THE OPPOSITE SIDE OF THE COSTIMATOR

On the opposite side of the Pickett Costimator a conventional slide rule will be found. These scales are used for multiplication, division, square and cube roots, ratio and proportion, interest and many other business problems. Complete and simplified instructions for its use are found starting on Page 10 in the additional manual for the Model 400 Business Slide Rule, which is enclosed.

Set the indicator arrow (Scale 3) opposite $\$ 21,500$ (Scale 4). It is seen that $80 \%$ of $\$ 21,500$ is $\$ 17,200$ (Scale 4). $\$ 17,500$ (Scale 4) is approximately $811 / 2 \%$ of the sales price (Scale 5), a larger loan than could be expected from the loan company.
III. Estimating Approximate Monthly Loan Payments.
Example: Approximately what will be the monthly payments on a loan of $\$ 16,000$ at $6 \%$ for a term of 25 years?
Set the dot (under the payment grid on the center slide) opposite the loan amount, $\$ 16,000$ (Scale 4). Follow the $6 \%$ line in the payment grid horizontally across to the left. Find where it intersects the slanting vertical 25 -year grid line. Set the finder line directly over this intersection. The monthly payment is then read on Scale 4 directly under the finder line. Note: The last two zeros of this number must obviously be dropped; i.e., the answer is approximately $\$ 103.00$, not $\$ 10,300.00$.
Important: Occasionally, on certain calculations, the answer will not be able to be read (off the end of the scale). When this occurs remember that the center slide can always be placed in 2 different positions and read the same. Using the finder line as a fixed point of reference placed on either 2 , or 20 , on Scale 2, shift the center slide to the opposite end of Scale 2, either 20 or 2 , and all digital readings will remain the same.

## IV. Estimating the Remaining Balance Due on a Loan.

Frequently it becomes necessary to determine what the balance will be on a loan at the end of a specified number of years. This computation is quite simple using the payment grid. As in the previous example, set up the original loan amount, interest rate, and original term of the loan or the monthly payment. Keeping the finder line on the monthly payment, move the center slide to the left and count off the necessary numbers of expired years using the grid intersection point of the finder line and the interest rate as the reference mark. The dot (under the payment grid) will now point to the remaining balance read on Scale 4.

Example: What will be the balance due on a $\$ 16,000-6 \%-25$-year loan after a period of 7 years (assuming only required monthly payments have been made)? With the Costimator set as in example III, move only the center slide to the left 7 years as read on the $6 \%$ line of the grid. This will make the finder line intersect the $6 \%$ grid line at 18 years ( 25 minus 7). The remaining balance, approximately $\$ 13,600$, is indicated on Scale 4 by the dot under the payment grid.

## V. Computing Square Footage.

To multiply one number by another, as in figuring the square footage of a building, the numbers on Scales 1, 2 and 4 are used. In this operation consider only the figures (digits) on the scales. Disregard the decimal point. In other words, 1,000 on Scale 1 represents not only 1,000 but 100, or 10 , or 1 , or even, .1 , etc.


Example: How many square feet are in a rectangular house measuring 25 feet on one side and 37 feet on the other?

Set the finder line over 25 on Scale 1. Move the center slide until 37 on Scale 2 is directly under the line. Do not forget to read from right to left on this scale (2). The indicator arrow (Scale 3) now points to the answer on

Scale 4, 925. (Obviously the result of multiplying $25 \times 37$ is not 9,250 , nor is it 92.5). In this example the number set on Scale I could just as well have been 37, and the number on Scale 2, 25. The answer is the same. However, in some other problem, should the indicator arrow point to no number at all (off the end of the scale), reverse the numbers used on Scale 1 and 2 and the arrow will point to the answer.

Having multiplied on the Costimator by going from Scales 1 and 2 to 4, it becomes apparent that we can divide by reversing this procedure.

Example: The individual lot area in the proposed subdivision is to be 7500 square feet. How wide can a rectangular lot be if its depth is to be 125 feet?

Set the indicator arrow opposite the number to be divided (7500) on Scale 4. Set the finder line directly over 125 on Scale 2. The answer is read directly opposite on Scale 1, 60 feet. As in the previous example, 125 could have just as well been set up on Scale 1 and the answer read as the same figure, 60, on Scale 2. However, in some other problem, should the answer be impossible to read (off the end of the scale) then use the opposite scale (1 or 2) and you will have the answer.

## VI. Commissions.

Set the sales price (Scale 4) which the owner wishes to net, opposite $5 \%$ (Scale 3). Use the finder line. The indicator arrow points to the required sales price (Scale 4) that will net the broker a $5 \%$ commission.
new today? There is also a garage which would cost $\$ 1000$ to replace today. It has been estimated that the building has depreciated some $15 \%$.

Set the finder line at 1600 square feet (Scale $1)$. Move the center slide until $\$ 11.00$ per square foot (Scale 2) is directly under this line. The indicator arrow (Scale 3) now points to $\$ 17,600$ (Scale 4). Add $\$ 1000$ to this figure by moving the indicator arrow right along Scale 4 to $\$ 18,600$ ( $\$ 17,600$ plus $\$ 1000$ equals $\$ 18,600$ ). Now set the finder line at $15 \%$ depreciation (Scale 3), and the answer is read on Scale 4 directly under this line- $\$ 15,800$ ( $\$ 15,810$ exactly). Note: Accuracy to 3 places is possible with this tool which is more than adequate for most real estate estimates. Realize also that the Costimator can serve as an excellent "check" on written and calculated reports.

## II. Percentage of Loan to Total Market Value and/or sales price.

Real estate loan companies almost always Ioan an amount equal to a certain fixed percentage of their appraised value of the property. Sometimes this corresponds directly with the selling price. The Costimator can give the percentage of whichever figure is chosen.

Example: What is the likely amount of the loan available from the " X " loan company on a property which has been sold for $\$ 17,500$ ? (The " X " loan company has been consistently loaning up to $80 \%$ of a good selling price on property similar to this.)
Set the indicator arrow (Scale 3) opposite $\$ 17,500$ on Scale 4. Set the finder line at $80 \%$ (Scale 5). The answer, $\$ 14,000$ is read on Scale 4 directly under this line.

Example: A Real Estate broker asks a loan officer of the same " $X$ " loan company if he may secure from them a loan of $\$ 17,500$ on a property he has just sold for $\$ 21,500$.

