

Section 8.5

TERMINOLOGY

8.5

For the following term, provide 1) a definition in your own words, 2) the formal definition (as provided by your text or instructor), and 3) an example of the term using a drawing or problem. A sample filled-out form is available in the Introduction.

Estimate

Your definition	
Formal definition	
Example	

READING AND SELF-DISCOVERY QUESTIONS

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- How would you explain to another student how to:
 - Estimate 10% of a whole number **Remove the last digit of the number. Alternatively, place a decimal point at the right end of the number & then move the decimal place one position to the left. This is equivalent to multiplying the number by $1/10$ (the fractional equivalent of 0.1 or 10%).**
 - Estimate 1% of a whole number **Remove the last two digits of the number. Alternatively, place a decimal point at the right end of the number & then move the decimal point two positions to the left. This is equivalent to multiplying the number by $1/100$, the fractional equivalent of (0.01 or 1%).**
 - Estimate 20% of a whole number **Find 10% of the number and double it. Alternatively, multiply the number by 2 and move the decimal place at the right end of the resulting number one place to the left. Or, divide the whole number by 5 (the equivalent of multiplying by $1/5$ or 20%).**
 - Estimate 5% of a whole number **Find $1/2$ of 10% of the number. Alternatively, multiply the number by 5 and then move the decimal place at the right end of the resulting number two places to the left. Or, divide the whole number by 20 (the equivalent of multiplying by $1/20$ or 5%).**
 - Estimate 15% of a whole number **Add 10% of the number to 5% of the number.**

CRITICAL THINKING QUESTION

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- Customers generally leave a 15% tip in a restaurant. What is a quick way to estimate the amount of the tip? How does this method help you estimate other percentages?

Estimate 10% of the number and then add half the estimate to the first estimate. This estimate can also help you determine 30% and 45% by multiplying this 15% estimate by 2 and 3, respectively.