

San Pasa's Tips on  
**RULES OF THUMB**

**Definition:** Useful principles having wide application but not intended to be strictly accurate or reliable in every situation. *Some similar or related words:* estimate, trial, trial and error, experiment [Best guess?]

*From Wikipedia, the free online encyclopedia:* “A rule of thumb is an easily learned and easily applied procedure for approximately calculating or recalling some value, or for making some determination. . . . The term ‘rule of thumb’ or similar exists in many languages and cultures. . . . Its likely origin is that the thumb is often used for rough measurement by carpenters, seamstresses, and many others. In fact, the measurement of an inch is believed to have been derived from the distance between the tip of the thumb and the first joint.”

*Also from Wikipedia:* “**Occam's Razor** is a principle attributed to the 14<sup>th</sup> century English logician and Franciscan friar, William of Ockham (c. 1285–1349). . . . In its simplest form, Occam's Razor states that one should not make more assumptions than needed. When multiple explanations are available for a phenomenon, the simplest version is preferred.” A charred tree found on the ground could be the result of an alien spaceship landing or of a lightning strike. According to Occam's Razor, the lightning strike is the preferred explanation, as it requires the fewest assumptions.

## **THE 80/20 RULE**

**When all members of a set are arranged according to their value,  
80% of the value will come from 20% of the members.**

The 80/20 Rule teaches us to pay attention to those people, processes, things and events that most enrich (or diminish) our lives. It helps us to focus our energy on our priorities.

*For example:*

80% of program (or product) benefits come from 20% of its features.

80% of complaints come from 20% of customers.

80% of wear occurs in 20% of carpet area.

80% of wear occurs in 20% of automobile parts.

20% of components account for 80% of house (or vehicle or system) costs.

80% of process errors come from 20% of process steps.

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80% of decisions take 20% of decision-making time; or, conversely, 20% of decisions take 80% of decision-making time.

80% of useable ideas come from 20% of the staff.

20% of students comprehend 80% of the material.

80% of the Gross National Product is generated by 20% of the nation's enterprises.

20% of the nation's enterprises employ 80% of the nation's workers.

80% of wealth is owned by 20% of the world's people.

80% of Earth's resources are consumed by 20% of Earth's people.

80% of problems come from 20% of an organization's or a system's processes.

20% of advertising dollars account for 80% of advertising impact.

80% of life's pleasures come from 20% of life's activities.

20% of relationships account for 80% of relationship grief.

The 80/20 Rule applies about 80% of the time.

**APPLYING THE 80/20 RULE  
TO COMPUTER PROGRAMMING**

Applying the 80/20 Rule to computer programming projects can save time, money, energy and aggravation; for example:

80% of the benefits of a computer program (or system) come from 20% of its features.

80% of the goals and objectives of a computer program (or system) are met by 20% of its functions and features.

80% of software programming costs come from 20% of the features and functions programmed.

80% of software programming complexities are in 20% of program code.

80% of input errors come from 20% of input types.

80% of customer's decisions about desired software (or system) functions and features take 20% of the decision-making time.

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80% of useable ideas for software and system features and functions come from 20% of the people in an organization (very often from the system user community).

80% of a program's usefulness is in 20% of its code.

80% of problems solved by a program (or a system) are solved by 20% of its functions and features.

80% of problems created by a program (or a system) are created by 20% of its functions and features.

80% of computer resources used by a program are used by 20% of its program code.

80% of a program's processing activity are generated by 20% of the transactions it processes.

80% of the effective control of a software development project comes from 20% of the project control methods and tools.

**TRIAGE: SORTING INTO THREE SETS**

*For example:*

**MUST**  
**SHOULD**  
**WOULD-BE-NICE**

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Finally, here's a rule of thumb on constraining the three major variables of product (or service) quality, cost, and development time:

