



California Critical Thinking Skills Test (CCTST). This instrument measures the critical thinking and numeracy skills human beings use in the process of reasoning reflectively to a judgment about what to believe or what to do.

Skill/Attribute Name	N	Mean	Median	Standard Deviation	SE Mean
OVERALL	84	70.3	69	6.8	0.7
Analysis	84	69.0	67	8.3	0.9
Inference	84	71.0	70	6.6	0.7
Evaluation	84	70.1	67	7.7	0.8
Induction	84	72.9	73	6.9	0.7
Deduction	84	69.0	69	6.9	0.8
Interpretation	84	72.8	71	7.4	0.8
Explanation	84	71.6	71	9.2	1
Numeracy	84	67.6	65	7.4	0.8

Skill/Attribute Name	Minimum	Maximum	Quartile 1	Quartile 3
OVERALL	57	86	65	75
Analysis	55	92	63	71
Inference	58	91	67	73
Evaluation	55	88	63	75
Induction	58	88	68	78
Deduction	56	90	64	71
Interpretation	55	88	67	80
Explanation	55	92	63	80
Numeracy	58	90	62	72

Based on the distribution of the overall score percentiles for the test takers in this group, as compared to an aggregate sample of CCTST Two Year College Students, the average percentile score of this group of test takers is 41.



Assignment: 6 - Spring 2021

# **Descriptive Information: OVERALL**





The Overall Score describes overall strength in using reasoning to form reflective judgments about what to believe or what to do. To score well overall, the test taker must excel in the sustained, focused and integrated application of core reasoning skills including analysis, interpretation, inference, evaluation, explanation, induction and deduction. The Overall Score predicts the capacity for success in educational or workplace settings which demand reasoned decision making and thoughtful problem solving.

The descriptive information reported below indicates strengths and also areas for continued improvement. These results are useful for understanding group characteristics, for comparing and contrasting similar groups on specific attributes or skills, and for guiding the development of more targeted educational or training programs.



Assignment: 6 - Spring 2021

#### **Descriptive Information: Analysis**



Analytical skills are used to identify assumptions, reasons, themes, and the evidence used in making arguments or offering explanations. Analytical skills enable us to consider all the key elements in any given situation, and to determine how those elements relate to one another. People with strong analytical skills notice important patterns and details. People use analysis to gather the most relevant information from spoken language, documents, signs, charts, graphs, and diagrams.



Assignment: 6 - Spring 2021

#### **Descriptive Information: Inference**



Inference skills enable us to draw conclusions from reasons, evidence, observations, experiences, or our values and beliefs. Using Inference, we can predict the most likely consequences of the options we may be considering. Inference enables us to see the logical consequences of the assumptions we may be making. Sound inferences rely on accurate information. People with strong inference skills draw logical or highly reliable conclusions using all forms of analogical, probabilistic, empirical, and mathematical reasoning.



Assignment: 6 - Spring 2021

# **Descriptive Information: Evaluation**





#### Evaluation

Evaluative skills are used to assess the credibility of the claims people make or post, and to assess the quality of the reasoning people display when they make arguments or give explanations. We can also apply our evaluation skills to assess the quality of many other elements that are important for good thinking, such as analyses, interpretations, explanations, inferences, options, opinions, beliefs, hypotheses, proposals, and decisions. People with strong evaluation skills can judge the quality of arguments and the credibility of speakers and writers.



Assignment: 6 - Spring 2021

# **Descriptive Information: Induction**



Inductive reasoning relies on estimating likely outcomes. Decision making in contexts of uncertainty relies on inductive reasoning. Inductive decisions can be based on analogies, case studies, prior experience, statistical analyses, simulations, hypotheticals, trusted testimony, and the patterns we may recognize in a set of events, experiences, symptoms or behaviors. Inductive reasoning always leaves open the possibility, however remote, that a highly probable conclusion might be mistaken. Although it does not yield certainty, inductive reasoning can provide a solid basis for confidence in our conclusions and a reasonable basis for action.



Assignment: 6 - Spring 2021

# **Descriptive Information: Deduction**





# Deductive reasoning is rigorously logical and clear cut. Deductive skills are used whenever we determine the precise logical consequences of a given set of rules, conditions, beliefs, values, policies, principles, procedures, or terminology. Deductive reasoning is deciding what to believe or what to do in precisely defined contexts that rely on strict rules and logic. Deductive validity results in a conclusion which absolutely cannot be false, if the assumptions or premises from which we started all are true. Deductive validity leaves no room for uncertainty. That is, unless we decide to change the very meanings of our words or the grammar of our language.



Assignment: 6 - Spring 2021

#### **Descriptive Information: Interpretation**





Interpretation

Interpretation is the process of discovering, determining, or assigning meaning. Interpretation skills can be applied to anything, e.g. written messages, charts, diagrams, maps, graphs, memes, and verbal and non-verbal exchanges. People apply their interpretive skills to behaviors, events, and social interactions when deciding what they think something means in a given context.



Assignment: 6 - Spring 2021

# **Descriptive Information: Explanation**





Explanation

Explanation is the process of justifying what we have decided to do or what we have decided to believe. People with strong explanation skills provide the evidence, methods, and considerations they actually relied on when making their judgment. Explanations can include our assumptions, reasons, values, and beliefs. Strong explanations enable others to understand and to evaluate our decisions.



Assignment: 6 - Spring 2021

#### **Descriptive Information: Numeracy**



Numeracy refers to the ability to make judgments based on quantitative information in a variety of contexts. People with strong numeracy can describe how quantitative information is gathered, manipulated, and represented textually, verbally, and visually in graphs, charts, tables and diagrams. Numeracy requires all the core critical thinking skills. Numeracy includes being thoughtfully reflective while interpreting the meaning of information expressed in charts, graphs, or text formats, analyzing those elements, drawing accurate inferences from that information, and explaining and evaluating how those conclusions were reached.