

**DEFINITION:** Problem Solving is the amount and nature of the thinking required in the job in the form of analyzing, reasoning, evaluating, creating, using judgment, forming hypotheses, drawing inferences, arriving at conclusions, and the like.

Problem Solving has two dimensions:

- The environment in which the thinking takes place — the extent to which assistance or guidance is available from others or from past practice and precedents.
- The challenge of the thinking to be done — the novelty and complexity of the thinking required.

**N.B.:** The evaluation of Problem Solving should be made without reference to the job's freedom to make decisions or take action; these are measured on the Accountability Chart.



GUIDE CHART FOR EVALUATING  
PROBLEM SOLVING

**MEASURING PROBLEM SOLVING:** All thinking requires the presence of knowledge in the form of facts, principles, procedures, standards, concepts, etc. This is the raw material to which the thinking processes are applied.

Problem Solving measures the degree to which thinking processes must be applied to the required knowledge in order to obtain the results expected of the job.

To the extent that thinking is limited or reduced by job demands or structure, covered by precedent, simplified by definition, or assisted by others, Problem Solving is diminished and results are obtained by the automatic application of skills rather than by the application of the thinking processes to knowledge.

		•• THINKING CHALLENGE								
			1. Identical situations requiring resolution by simple choice of learned things.	2. Similar situations requiring resolution by discriminating choice of learned things.	3. Differing situations requiring search for solutions within area of learned things.	4. Variable situations requiring analytical, interpretative, evaluative, and/or constructive thinking.	5. Novel or non-recurring path-finding situations requiring the development of new concepts and imaginative approaches.			
STEP VALUES	The thinking environment is guided and circumscribed by: ↓	A	Thinking within very detailed and precisely defined rules and instructions <b>AND/OR</b> with continually present assistance.	10%	14%	19%	25%	33%	A	
				12%	16%	22%	29%	38%		
			B	Thinking within detailed standard practices and instructions <b>AND/OR</b> with immediately available assistance or examples.	12%	16%	22%	29%	38%	B
					14%	19%	25%	33%	43%	
			C	Thinking within well-defined, somewhat diversified procedures; many precedents covering most situations <b>AND/OR</b> readily available assistance.	14%	19%	25%	33%	43%	C
					16%	22%	29%	38%	50%	
			D	Thinking within clear but substantially diversified procedures; precedents covering many situations <b>AND/OR</b> access to assistance.	16%	22%	29%	38%	50%	D
					19%	25%	33%	43%	57%	
STEPS BELOW 100%	↓ ⇨	• THINKING ENVIRONMENT	E	Thinking within a well-defined frame of reference and toward specific objectives, in situations characterized by functional practices and precedents.	19%	25%	33%	43%	57%	E
				22%	29%	38%	50%	66%		
			F	Thinking within a general frame of reference toward functional objectives, in situations with some nebulous, intangible, or unstructured aspects.	22%	29%	38%	50%	66%	F
				25%	33%	43%	57%	76%		
			G	Thinking within concepts, principles, and broad guidelines towards the organization's objectives or functional goals; many nebulous, intangible, or unstructured aspects to the environment.	25%	33%	43%	57%	76%	G
				29%	38%	50%	66%	87%		
			H	Thinking within business philosophy <b>AND/OR</b> natural laws <b>AND/OR</b> principles governing human affairs.	29%	38%	50%	66%	87%	H
				33%	43%	57%	76%			