Achieve PMP Exam Success, 6th Edition - Alphabetical List of Tools and Techniques

Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Active listening	Interpersonal and Team Skills	4.4 Manage Project Knowledge						10.2 Manage Communications			13.4 Monitor Stakeholder Engagement
Advertising	Ungrouped									12.2 Conduct Procurements	
Affinity diagrams	Data Representation Techniques		5.2 Collect Requirements			8.2 Manage Quality					
Agile release planning	Ungrouped			6.5 Develop Schedule							
Alternatives analysis	Data Analysis Techniques	4.5 Monitor and Control Project Work, 4.6 Perform Integrated Change Control	5.1 Plan Scope Management, 5.4 Create WBS	6.1 Plan Schedule Management, 6.4 Estimate Activity Durations	7.1 Plan Cost Management, 7.2 Estimate Costs	8.2 Manage Quality	9.2 Estimate Activity Resources, 9.6 Control Resources		11.5 Plan Risk Responses		13.4 Monitor Stakeholder Engagement
Analogous estimating	Ungrouped			6.4 Estimate Activity Durations	7.2 Estimate Costs		9.2 Estimate Activity Resources				
Assessment of other risk parameters	Data Analysis Techniques								11.3 Perform Qualitative Risk Analysis		
Assumption and constraint analysis	Data Analysis Techniques								11.2 Identify Risks		
Audits	Ungrouped					8.2 Manage Quality			11.7 Monitor Risks	12.3 Control Procurements	
Benchmarking	Data Gathering Techniques		5.2 Collect Requirements			8.1 Plan Quality Management					13.2 Plan Stakeholder Engagement
Bidder conferences	Ungrouped									12.2 Conduct Procurements	

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Bottom-up estimating	Ungrouped			6.4 Estimate Activity Durations	7.2 Estimate Costs		9.2 Estimate Activity Resources				
Brainstorming	Data Gathering Techniques	4.1 Develop Project Charter, 4.2 Develop Project Management Plan	5.2 Collect Requirements			8.1 Plan Quality Management			11.2 Identify Risks		13.1 Identify Stakeholders
Cause-and-effect diagrams	Data Representation Techniques					8.2 Manage Quality, 8.3 Control Quality					
Change control tools	Ungrouped	4.6 Perform Integrated Change Control									
Check sheets	Data Gathering Techniques					8.3 Control Quality					
Checklists	Data Gathering Techniques	4.2 Develop Project Management Plan				8.2 Manage Quality, 8.3 Control Quality			11.2 Identify Risks		
Claims administration	Ungrouped									12.3 Control Procurements	
Colocation	Ungrouped						9.4 Develop Team				
Communication methods	Ungrouped							10.1 Plan Communications Management, 10.2 Manage Communications			
Communication models	Ungrouped							10.1 Plan Communications Management			

Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Communication requirements analysis	Ungrouped							10.1 Plan Communications Management			
Communication styles assessment	Interpersonal and Team Skills							10.1 Plan Communications Management			
Communications technology	Ungrouped						9.4 Develop Team	10.1 Plan Communications Management, 10.2 Manage Communications			
Conflict management	Interpersonal and Team Skills	4.1 Develop Project Charter, 4.2 Develop Project Management Plan					9.4 Develop Team, 9.5 Manage Team	10.2 Manage Communications			13.3 Manage Stakeholder Engagement
Context diagram	Ungrouped		5.2 Collect Requirements								
Contingent response strategies	Ungrouped								11.5 Plan Risk Responses		
Control charts	Data Representation Techniques					8.3 Control Quality					
Cost aggregation	Ungrouped				7.3 Determine Budget						
Cost of quality	Data Analysis Techniques				7.2 Estimate Costs	8.1 Plan Quality Management					

Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Cost-benefit analysis	Data Analysis Techniques	4.5 Monitor and Control Project Work, 4.6 Perform Integrated Change Control				8.1 Plan Quality Management	9.6 Control Resources		11.5 Plan Risk Responses		
Critical path method	Ungrouped			6.5 Develop Schedule, 6.6 Control Schedule							
Cultural awareness	Interpersonal and Team Skills							10.1 Plan Communications Management, 10.2 Manage Communications			13.3 Manage Stakeholder Engagement, 13.4 Monitor Stakeholder Engagement
Decision making	Interpersonal and Team Skills						9.5 Manage Team				
Decision tree analysis	Data Analysis Techniques								11.4 Perform Quantitative Risk Analysis		
Decomposition	Ungrouped		5.4 Create WBS	6.3 Sequence Activities							
Dependency determination and integration	Ungrouped			6.3 Sequence Activities							
Design for X	Ungrouped					8.2 Manage Quality					
Document analysis	Data Analysis Techniques	4.7 Close Project or Phase	5.2 Collect Requirements			8.2 Manage Quality			11.2 Identify Risks		13.1 Identify Stakeholders

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Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Earned value analysis	Data Analysis Techniques	4.5 Monitor and Control Project Work		6.6 Control Schedule	7.4 Control Costs					12.3 Control Procurements	
Emotional intelligence	Interpersonal and Team Skills						9.5 Manage Team				
Expert judgment	Ungrouped	4.1 Develop Project Charter, 4.2 Develop Project Management Plan, 4.3 Direct and Manage Project Work, 4.4 Manage Project Knowledge, 4.5 Monitor and Control Project Work, 4.6 Perform Integrated Change Control, 4.7 Close Project or Phase	5.1 Plan Scope Management, 5.2 Collect Requirements, 5.3 Define Scope, 5.4 Create WBS	6.1 Plan Schedule Management, 6.2 Define Activities, 6.4 Estimate Activity Durations	7.1 Plan Cost Management, 7.2 Estimate Costs, 7.3 Determine Budget, 7.4 Control Costs	8.1 Plan Quality Management	9.1 Plan Resource Management, 9.2 Estimate Activity Resources	10.1 Plan Communications Management, 10.3 Monitor Communications	11.1 Plan Risk Management, 11.2 Identify Risks, 11.3 Perform Qualitative Risk Analysis, 11.4 Perform Quantitative Risk Analysis, 11.5 Plan Risk Responses, 11.6 Implement Risk Responses	12.1 Plan Procurement Management, 12.2 Conduct Procurements, 12.3 Control Procurements	13.1 Identify Stakeholders, 13.2 Plan Stakeholder Engagement, 13.3 Manage Stakeholder Engagement
Facilitation	Interpersonal and Team Skills	4.1 Develop Project Charter, 4.2 Develop Project Management Plan, 4.4 Manage Project Knowledge	5.2 Collect Requirements, 5.3 Define Scope						11.2 Identify Risks, 11.3 Perform Qualitative Risk Analysis, 11.4 Perform Quantitative Risk Analysis, 11.5 Plan Risk Responses		

Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Feedback	Communication Skills							10.2 Manage Communications			13.4 Monitor Stakeholder Engagement
Financing	Ungrouped				7.3 Determine Budget						
Flowcharts	Data Representation Techniques					8.1 Plan Quality Management, 8.2 Manage Quality					
Focus groups	Data Gathering Techniques	4.1 Develop Project Charter, 4.2 Develop Project Management Plan	5.2 Collect Requirements								
Funding limit reconciliation	Ungrouped				7.3 Determine Budget						
Ground rules	Ungrouped										13.3 Manage Stakeholder Engagement
Hierarchical charts	Data Representation Techniques						9.1 Plan Resource Management				
Histograms	Data Representation Techniques					8.2 Manage Quality, 8.3 Control Quality					
Historical information review	Ungrouped				7.3 Determine Budget						
Individual and team assessments	Ungrouped						9.4 Develop Team				

Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Influence diagrams	Data Analysis Techniques								11.4 Perform Quantitative Risk Analysis		
Influencing	Interpersonal and Team Skills						9.4 Develop Team, 9.5 Manage Team, 9.6 Control Resources		11.6 Implement Risk Responses		
Information management	Ungrouped	4.4 Manage Project Knowledge									
Inspections	Ungrouped		5.5 Validate Scope			8.3 Control Quality				12.3 Control Procurements	13.3 Manage Stakeholder Engagement
Interviews	Data Gathering Techniques	4.1 Develop Project Charter, 4.2 Develop Project Management Plan	5.2 Collect Requirements			8.1 Plan Quality Management			11.2 Identify Risks, 11.3 Perform Qualitative Risk Analysis, 11.4 Perform Quantitative Risk Analysis, 11.5 Plan Risk Responses		
Iteration burnout chart	Data Analysis Techniques			6.6 Control Schedule							
Knowledge management	Ungrouped	4.4 Manage Project Knowledge									
Leadership	Interpersonal and Team Skills	4.4 Manage Project Knowledge					9.5 Manage Team				13.4 Monitor Stakeholder Engagement

Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Leads and lags	Ungrouped			6.3 Sequence Activities, 6.5 Develop Schedule, 6.6 Control Schedule							
Logical data model	Data Representation Techniques					8.1 Plan Quality Management					
Make-or-buy analysis	Data Analysis Techniques									12.1 Plan Procurement Management	
Market research	Data Gathering Techniques									12.1 Plan Procurement Management	
Matrix charts	Data Representation Techniques					8.1 Plan Quality Management, 8.2 Manage Quality					
Matrix-based charts	Data Representation Techniques						9.1 Plan Resource Management				
Meeting management	Interpersonal and Team Skills	4.1 Develop Project Charter, 4.2 Develop Project Management Plan						10.2 Manage Communications			

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Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Meetings	Ungrouped	4.1 Develop Project Charter, 4.2 Develop Project Management Plan, 4.3 Direct and Manage Project Work, 4.5 Monitor and Control Project Work, 4.6 Perform Integrated Change Control, 4.7 Close Project or Phase	5.1 Plan Scope Management	6.1 Plan Schedule Management, 6.2 Define Activities, 6.4 Estimate Activity Durations	7.1 Plan Cost Management	8.1 Plan Quality Management, 8.3 Control Quality	9.1 Plan Resource Management, 9.2 Estimate Activity Resources, 9.4 Develop Team	10.1 Plan Communications Management, 10.2 Manage Communications, 10.3 Monitor Communications	11.1 Plan Risk Management, 11.2 Identify Risks, 11.3 Perform Qualitative Risk Analysis, 11.6 Implement Risk Responses	12.1 Plan Procurement Management	13.1 Identify Stakeholders, 13.2 Plan Stakeholder Engagement, 13.3 Manage Stakeholder Engagement, 13.4 Monitor Stakeholder Engagement
Mind mapping	Data Representation Techniques		5.2 Collect Requirements			8.1 Plan Quality Management					13.2 Plan Stakeholder Engagement
Motivation	Interpersonal and Team Skills						9.4 Develop Team				
Multicriteria decision making analysis	Decision-Making Techniques	4.6 Perform Integrated Change Control	5.2 Collect Requirements, 5.3 Define Scope			8.1 Plan Quality Management, 8.2 Manage Quality	9.3 Acquire Resources		11.5 Plan Risk Responses		13.4 Monitor Stakeholder Engagement
Negotiation	Interpersonal and Team Skills						9.3 Acquire Resources, 9.4 Develop Team, 9.6 Control Resources			12.2 Conduct Procurements	13.3 Manage Stakeholder Engagement

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Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Networking	Interpersonal and Team Skills	4.4 Manage Project Knowledge						10.2 Manage Communications			13.4 Monitor Stakeholder Engagement
Nominal group	Interpersonal and Team Skills		5.2 Collect Requirements								
Observation/ conversation	Interpersonal and Team Skills		5.2 Collect Requirements					10.3 Monitor Communications			13.3 Manage Stakeholder Engagement
Organization theory	Ungrouped						9.1 Plan Resource Management				
Parametric estimating	Ungrouped			6.4 Estimate Activity Durations	7.2 Estimate Costs		9.2 Estimate Activity Resources				
Performance reviews	Data Analysis Techniques			6.6 Control Schedule		8.3 Control Quality	9.6 Control Resources			12.3 Control Procurements	
Political awareness	Interpersonal and Team Skills	4.4 Manage Project Knowledge						10.1 Plan Communications Management, 10.2 Manage Communications			13.3 Manage Stakeholder Engagement, 13.4 Monitor Stakeholder Engagement
Pre-assignment	Ungrouped						9.3 Acquire Resources				
Precedence diagramming method	Ungrouped			6.3 Sequence Activities							
Presentations	Communication Skills							10.2 Manage Communications			13.4 Monitor Stakeholder Engagement

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Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Probability and impact matrix	Data Representation Techniques								11.3 Perform Qualitative Risk Analysis		
Problem solving	Ungrouped					8.2 Manage Quality	9.6 Control Resources				
Process analysis	Data Analysis Techniques					8.2 Manage Quality					
Product analysis	Ungrouped		5.3 Define Scope								
Project management information system	Ungrouped	4.3 Direct and Manage Project Work		6.3 Sequence Activities, 6.5 Develop Schedule, 6.6 Control Schedule	7.2 Estimate Costs, 7.4 Control Costs		9.2 Estimate Activity Resources, 9.5 Manage Team, 9.6 Control Resources	10.2 Manage Communications, 10.3 Monitor Communications	11.6 Implement Risk Responses		
Project reporting	Ungrouped					8.2 Manage Quality					
Prompt lists	Ungrouped								11.2 Identify Risks		
Proposal evaluation	Data Analysis Techniques									12.2 Conduct Procurements	
Prototypes	Ungrouped		5.2 Collect Requirements								
Quality improvement methods	Ungrouped					8.2 Manage Quality					
Questionnaires and surveys	Data Gathering Techniques		5.2 Collect Requirements								13.1 Identify Stakeholders
Recognition and rewards	Ungrouped						9.4 Develop Team				
Regression analysis	Data Analysis Techniques	4.7 Close Project or Phase									

Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Representation of uncertainty	Ungrouped								11.4 Perform Quantitative Risk Analysis		
Reserve analysis	Data Analysis Techniques			6.4 Estimate Activity Durations	7.2 Estimate Costs, 7.3 Determine Budget, 7.4 Control Costs				11.6 Implement Risk Responses		
Resource optimization	Ungrouped			6.5 Develop Schedule, 6.6 Control Schedule							
Risk categorization	Ungrouped								11.3 Perform Qualitative Risk Analysis		
Risk data quality assessment	Data Analysis Techniques								11.3 Perform Qualitative Risk Analysis		
Risk probability and impact assessment	Data Analysis Techniques								11.3 Perform Qualitative Risk Analysis		
Rolling wave planning	Ungrouped			6.2 Define Activities							
Root cause analysis	Data Analysis Techniques	4.5 Monitor and Control Project Work				8.2 Manage Quality, 8.3 Control Quality			11.2 Identify Risks		13.2 Plan Stakeholder Engagement, 13.4 Monitor Stakeholder Engagement
Scatter diagrams	Data Representation Techniques					8.2 Manage Quality, 8.3 Control Quality					

Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Schedule compression	Ungrouped			6.5 Develop Schedule, 6.6 Control Schedule							
Schedule network analysis	Ungrouped			6.5 Develop Schedule							
Sensitivity analysis	Data Analysis Techniques								11.4 Perform Quantitative Risk Analysis		
Simulation	Data Analysis Techniques			6.5 Develop Schedule					11.4 Perform Quantitative Risk Analysis		
Source selection analysis	Ungrouped									12.1 Plan Procurement Management	
Stakeholder analysis	Data Analysis Techniques								11.1 Plan Risk Management		13.1 Identify Stakeholders, 13.4 Monitor Stakeholder Engagement
Stakeholder engagement assessment matrix	Data Representation Techniques							10.1 Plan Communications Management, 10.3 Monitor Communications			13.2 Plan Stakeholder Engagement, 13.4 Monitor Stakeholder Engagement
Stakeholder mapping /representation	Data Representation Techniques										13.1 Identify Stakeholders
Statistical sampling	Data Gathering Techniques					8.3 Control Quality					
Strategies for opportunities	Ungrouped								11.5 Plan Risk Responses		

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Tool & Technique	Tools and Techniques Groups	Integration	Scope	Schedule	Cost	Quality	Resource	Communications	Risk	Procurement	Stakeholder
Strategies for overall project risk	Ungrouped								11.5 Plan Risk Responses		
Strategies for threats	Ungrouped								11.5 Plan Risk Responses		
SWOT analysis	Data Analysis Techniques								11.2 Identify Risks		13.2 Plan Stakeholder Engagement
Team building	Interpersonal and Team Skills						9.4 Develop Team				
Technical performance analysis	Data Analysis Techniques								11.7 Monitor Risks		
Testing/ product evaluations	Ungrouped					8.3 Control Quality					
Tests and inspection planning	Ungrouped					8.1 Plan Quality Management					
Text-oriented formats	Data Representation Techniques						9.1 Plan Resource Management				
The red, bold font is the process where the tool or technique is described.											
Three-point estimating	Ungrouped			6.4 Estimate Activity Durations	7.2 Estimate Costs						
To-complete performance index	Ungrouped				7.4 Control Costs						
Training	Ungrouped						9.4 Develop Team				

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Trend analysis	Data Analysis Techniques	4.5 Monitor and Control Project Work, 4.7 Close Project or Phase	5.6 Control Scope	6.6 Control Schedule	7.4 Control Costs		9.6 Control Resources			12.3 Control Procurements	
Variance analysis	Data Analysis Techniques	4.5 Monitor and Control Project Work, 4.7 Close Project or Phase	5.6 Control Scope	6.6 Control Schedule	7.4 Control Costs						
Virtual teams	Ungrouped						9.3 Acquire Resources, 9.4 Develop Team				
Voting	Decision-Making Techniques	4.5 Monitor and Control Project Work, 4.6 Perform Integrated Change Control	5.2 Collect Requirements, 5.5 Validate Scope	6.4 Estimate Activity Durations	7.2 Estimate Costs						13.4 Monitor Stakeholder Engagement
What-if-scenario analysis	Data Analysis Techniques			6.5 Develop Schedule, 6.6 Control Schedule							

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