

CalHR Test Item/KSAPC Linkage Sheet Plumber I

Examination Section #1

Mathematics			
	CalHR's Job Analysis KSAPC Statement		Department's Job Analysis KSAPC Statement
1.	Knowledge of basic algebra and geometry and their applications for determining pipe measurement, fall, and grading in the completion of plumbing activities.	1.	
2.	Knowledge of basic arithmetic (e.g., addition, subtraction, multiplication, division, etc.) used for the completion of plumbing activities	2.	

Examination Section #2

Plumber Knowledge			
	CalHR's Job Analysis KSAPC Statement		Department's Job Analysis KSAPC Statement
1.	Knowledge of Safety Orders of the Division of Industrial Safety applicable to plumbing to ensure a safe working environment.	1.	
2.	Knowledge of the principles, methods, tools, and equipment used in plumbing to ensure adherence to departmental quality standards and Uniform Plumbing Code.	2.	
3.	Knowledge of standard plumbing installation and servicing techniques concerned with various applications (e.g., water, gas, sewage, steam, oil, fire) in order to complete plumbing projects.	3.	

Plumber Knowledge			
	CalHR's Job Analysis KSAPC Statement		Department's Job Analysis KSAPC Statement
4.	Knowledge of the processes for conducting inspections of standard plumbing installations concerned with various applications (e.g., water, gas, sewage, steam, oil, fire) to ensure proper function, safety, and maximum efficiency.	4.	
5.	Knowledge of the inner workings and installation process for water irrigation systems in order to inspect and/or make repairs.	5.	
6.	Knowledge of various types of pipe (e.g., galvanized, copper, plastic) and their uses/properties in order to properly plan, conform to Uniform Plumbing Code, and complete plumbing projects.	6.	
7.	Knowledge of various types of machinery (e.g., snakes, power snakes, hand spinners, cameras) used to solve plumbing problems.	7.	
8.	Knowledge of materials, methods, and the tools involved in the construction or repair of houses, commercial buildings, and other structures such as highways, roads, and parks and how they relate to plumbing installation.	8.	
9.	Knowledge of machines and tools, including their designs, uses, repair, and maintenance for use in plumbing activities.	9.	
10.	Knowledge of drain or pipe clearing/cleaning equipment (e.g., drain cleaning cables, hand spinners, handheld electric snake, power sink machine, drain cleaners, toilet augers, blow/bladder bag) to facilitate plumbing activities.	10.	

Plumber Knowledge			
	CalHR's Job Analysis KSAPC Statement		Department's Job Analysis KSAPC Statement
11.	Knowledge of pipe or tube cutters (e.g., copper cutting machines, power pipe cutters, ratcheting polyvinyl chloride cutters, tubing cutters) to facilitate plumbing activities.		
12.	Knowledge of the functions of pressure indicators (e.g., pressure gauges, heavy duty water pressure gauges, standard water pressure gauges) to facilitate plumbing activities.		
13.	Knowledge of hand tools (e.g., basin wrench, pipe wrench, augers, hammer, tape measure, level, plunger) used to complete plumber activities.		