

1. You are a **carpenter**. Before graduating from high school, you met with a counselor who asked you many questions. She helped you recognize that you were physically fit, had excellent manual dexterity, good mathematics skills, and enjoyed creating things. She asked you if you might be interested in pursuing a career as a carpenter. You agreed that this might be a career for you. Once you graduated from high school, you took classes at a carpenter trade school and participated in an apprenticeship program that lasted three years and included on-the-job training. You are able to work from blueprints, measuring, marking, and arranging materials.

You check the accuracy of your work with levels, rules, plumb bobs, and framing squares. Your hourly wage is \$18.50. Last year, there were two months during which you were unable to work because of inclement weather.

2. You are a **painter and paperhanger**. During the summers of your junior and senior years in high school, you worked for a master painter who was an independent contractor. You set up and cleaned up. While helping, you learned a lot by watching the painter work. After you graduated from high school, you spoke with the contractor about being an apprentice. The contractor agreed to hire you. You attended classes and worked as an apprentice for three years. Some of the classes were mathematics classes.

As a painter and paperhanger you have to prepare surfaces for paint or paper, mix and apply paints, incorporate some decorating concepts, and use cost-estimating techniques. Your hourly wage is \$16. You worked the full year last year because you were able to work inside during inclement weather.

3. You are a **roofer**. You chose this career because your family owns a roofing company and has been in the roofing business for years. You learned your skills by participating in a three-year apprenticeship program that combined on-the-job training and classroom work. In addition to math classes, you also took a course in mechanical drawing. It is important that you stay in good physical condition and have excellent balance. Roofing is strenuous, hot, and dirty work. The longer you have worked in the business the more involved in budgeting, cost-estimation, and time estimation you have become. Last year, you earned \$15 per hour. You were out of work three months because of bad weather.

4. You are a **teacher**. When you graduated from high school, you decided to attend a state university and obtain a degree in education. When you obtained your degree, you had to pass a test in order to be certified as a teacher. You are certified to teach elementary school. To maintain your certification, you must attend professional development programs each year. Within two years from receiving your certification, you must begin work on your masters degree.

You teach fifth-grade. You have a minor in math so you teach all of the fifth-grade math classes. In exchange, your teaching partner teaches all of the fifth-grade social studies classes. In addition to teaching math, you use math skills to prepare bulletin board displays, prepare grades, and in many other ways. You work very hard to provide hands-on activities and math manipulatives so your students will enjoy and learn mathematics.

You have been teaching for 1-1/2 years. Your salary last year was \$24,390. You are in school for ten months. You have two months paid vacation. However, during that time, you must pursue educational opportunities that will help you obtain your masters degree.

5. You are a **lawyer**. After graduating from high school, you earned a bachelor of science degree in economics. After completing your undergraduate degree, you entered law school. This took an additional three years. When you finished law school, you had to pass the state bar exam, a test that determines whether lawyers are certified to practice law in a given state. You obtained certification in your state and three neighboring states. You specialize in real-estate law. You are a partner in a firm and, as a result, earn a yearly salary plus bonuses. Your bonuses are based on the percentage of work you bring to the firm. You must attend yearly courses and workshops to maintain your qualifications and to learn about recent developments in real-estate law.

In your work, you must be able to analyze and interpret tables of data, graphs, and charts. You also employ basic mathematics computation skills. Last year, your salary combined with bonuses averaged \$15,000 per month.

6. You are a **chef**. In high school, you took business mathematics and business administration. After high school, you attended a special cooking school – a culinary institute. This included classroom instruction as well as two internships at restaurants. Then you began work as an apprentice chef in a restaurant. Over time, you developed the experience necessary to establish your own catering business. You also took some basic business courses at a local community college. Some important skills necessary in your work are the ability to supervise less-skilled workers, limit food costs by minimizing waste, accurately anticipate the amount of perishable supplies needed, and maintain day-to-day bookkeeping. You measure, mix, and cook ingredients according to recipes. You also develop specialties. You organize and plan menus for your clients. Last year you estimate that you earned \$17.50 per hour and worked an average of 50 hours per week.

7. You are a **physician, a Doctor of Medicine**. You examine patients; order, perform, and interpret diagnostic tests; diagnose illnesses; and prescribe and administer treatment. Your specialty is pediatric cardiology. While in high school, you took many mathematics and advanced science courses. In college, you majored in pre-med. After earning your bachelors degree, you went to medical school for four years. After medical school you spent 7 years in internship and residency. You had to pass both the state medical exam and a special exam given by the American Board of Medical Specialists. Now you are in practice with other pediatric specialists.

As a partner in a medical practice you have office hours, hospital visits, in-office meetings, and must be on call to serve patients every other weekend. In general, you work 50 to 60 hours per week. Last year, your average monthly salary was \$18,750. You are still paying back student loans for your many years of education. But you are grateful to have reached your goal.

8. You are a **mechanical engineer**. You apply the theories and principles of science and mathematics to solve technical problems. You design products and machinery to build those products. Engineering knowledge is applied to improving many things.

You were always fascinated with how things work. Often you took things apart to see how they worked and then put them back together. In high school, you took all the mathematics and science classes offered. After high school, you attended a university that offered degrees in a number of engineering fields. It took four years to complete your degree. You went on to earn a masters degree in engineering. You are licensed as a professional engineer. To get this license, you had to work four years after finishing school and pass a special exam. To maintain your license, you must attend programs and courses each year. These courses help you maintain the technical knowledge you need to be successful. You enjoy your work because it is challenging. Last year, your hourly salary was \$35.

9. You are an **automobile mechanic/service technician**. You inspect, maintain, and repair automobiles and light trucks, such as vans and pickups with gasoline engines. People who did this work in the past were called auto mechanics. Now, because of computerized shop equipment and electric components, they are increasingly called service technicians.

You've always liked learning how things work and fixing things that didn't work. You had good reading, mathematics, communication, and analytical skills. After high school, you attended an intensive, two-year program that included classroom work as well as hands-on practice. Your classroom work included English, basic mathematics, and computers. After receiving your associate degree, you went to work for a large automobile dealership. Each year, the dealership sends you to a training center where you learn how to repair new car models and receive special training in the repair of things like fuel-injection systems or air conditioners. Last year, the dealership was extremely busy. You worked many hours of overtime. As a result, your weekly salary was \$1000.

10. You are a **registered nurse**. You help promote health, prevent disease, and help patients cope with illness. You provide direct patient care so you must observe, assess, and record symptoms, reactions, and progress. You assist physicians during treatments and examinations; administer medications; and assist patients with recovery. You supervise licensed practical nurses and aides on your floor.

You are a very caring and sympathetic person. You can direct others, follow precise orders and determine when assistance is needed. After graduating from high school, you attended a university that offered a four-year bachelor of science in nursing degree. Your training included classroom instruction and supervised clinical experience in hospitals and other health facilities. You took courses in anatomy, physiology, microbiology, chemistry, nutrition, psychology, and other behavioral sciences as well as nursing. Upon graduation, you went to work at the hospital. You take continuing education courses to advance your skills. Last year, you earned \$4,208 per month.

11. You are a **certified public accountant**. You prepare, analyze, and verify financial documents in order to provide information to your clients. You provide accounting, auditing, tax and consulting services for your clients. Your clients include businesses, governments, nonprofit organizations, and individuals.

You have a bachelor's degree in accounting. While in college, you participated in an internship program at a public accounting firm. After graduating from college, you took the certified public accountant exam. This two-day exam was very difficult, but you passed. As a result, you have a license as a certified public accountant (CPA). In order to renew your license, you must attend continuing education classes each year. Last year, you earned \$95,000.

12. You are a **retail salesperson**. You sell new and used automobiles. You help customers find the vehicle they are looking for and try to interest them in buying the auto. You describe the auto's features, demonstrate its use, and show various models and colors. You are able to explain the features of various models, the meaning of manufacturers' specifications, and the types of options and financing available. You fill out sales contracts and complete the paperwork necessary for various payment options.

You have always been able to communicate clearly and effectively. You have a real talent for persuasion. After finishing high school, you earned an associate degree in communication. Once you completed your degree, you went to work for a large automobile dealer. You participated in a dealer-training program and in manufacturer's training. This training provided information about the technical details of standard and optional equipment. Each year, you attend additional training regarding new models. You have been working for the same automobile dealership for several years. Last year you earned \$15 per hour.

13. You are a **firefighter**. You are called on to put out fires, treat injuries, and provide other emergency functions. Firefighting requires organization and teamwork. Between alarms, you clean and maintain equipment, conduct practice drills and fire inspections, and participate in physical fitness activities. You are required to prepare written reports on fire incidents and review fire-science literature to keep up with technology and changing practices and policies.

After graduation from high school, you had to pass a written exam; tests of strength, physical stamina, coordination, and agility, and a medical examination that included drug screening. You were among those with the highest scores on all the tests. That is why you were selected for your job. After accepting the job, you participated in weeks of training at the department's fire academy. This included classroom instruction and practical training. Some topics you studied were firefighting techniques, fire prevention, hazardous materials control, and first aid. You learned how to use axes, fire extinguishers, chain saws, ladders, and other firefighting equipment. You continue to study and acquire advanced skills in various fire-related topics. Last year, you worked an average of 50 hours per week and earned \$22 per hour.