

# Math Skills & Your Job



Almost all jobs require use of math. Carpenters use math to measure lengths and angles to install wood trim on cabinets. Machinists use math to manipulate (change around) angles and dimensions to make airplane parts. Bankers find customer's **percent of debt** (how much money is owed to others) **to equity** (how much money is left after paying others) before approving that customer for a loan. Grocery clerks use math to keep track of products on shelves to know when it is time to order more.

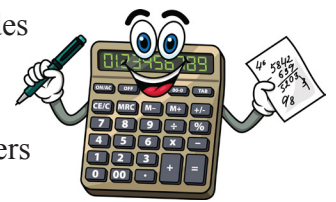
To succeed in math, you must: a) Attend class. b) Get involved and ask questions. c) Take time to do your homework. d) Find study partners in class. e) Seek help from teacher and tutoring. f) Understand your mistakes. g) Be organized. h) Persevere — continue to work through hard times and failure. Here is a list of jobs that require different types of math --

## GENERAL MATH SKILLS: Add, subtract, multiply, divide, fractions, decimals, percentages

Accounting & Auditing Clerks, Payroll Clerks  
 Bank Tellers, Loan Officers  
 Bartenders, Baristas  
 Cashiers & Counter Sales Workers  
 City Recreation Counselors, Sports Coaches  
 Construction Trade Workers, all  
 Dental Assistants & Dental Hygienists  
 Fundraiser (for non-profit group or political)  
 Glaziers (install/repair glass)  
 Hairstylists, Cosmetologists, Barbers  
 Landscape/Groundskeeping Supervisors/Workers  
 Legal Assistants & Paralegals  
 Medical Records Technicians, Medical Secretary



Police Officers  
 Postal Clerks & Mail Carriers  
 Practical/Vocational Nurses & Medical Assistants  
 Sales Associates, Sales Representatives (Traveling)  
 Secretaries & Office Clerks  
 Shipping & Receiving Clerks, Stock Clerks  
 Skin Care Specialists, Hair Stylists  
 Taxi Driver & Chauffeurs  
 Teacher Assistants & Preschool Teachers  
 Travel Agents & Tour Guides  
 Veterinarian Technicians  
 Waiters, Waitresses, Cooks  
 Wedding & Meeting Planners



## PRACTICAL MATH SKILLS: Requires general math skills plus algebra skills and geometry skills

Air Traffic Controllers & Aircraft Mechanics  
 Auto & Diesel Mechanics, Auto Body Repair Techs  
 Carpenters, Cabinet Makers, Roofers  
 Bricklayers, Tile Setters, Concrete/Stone Masons  
 Dietitians, Nutritionists & Chefs  
 Nuclear Power Plant Operators/Repairers  
 Electricians & Electronic Equipment Repairers  
 Engineering Technicians & Drafters  
 Fire Fighters, Forest Rangers  
 Heating, Air, Refrigeration Mechanics  
 Home Entertainment Equipment Technicians

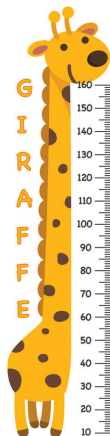


Industrial Machine & Robot Installers/Repairers  
 Inspectors & Product Testers  
 Lawyers, Paralegals  
 Machinists, Millwrights, Tool & Die Technicians  
 Motorcycle, Boat & Recreational Vehicle Repairers  
 Nurses & Health Technicians  
 Ophthalmic & Dental Laboratory Technicians  
 Physical & Occupational Therapists  
 Purchase Agents & Retail Buyers  
 Metal Workers, Iron Workers & Welders  
 Stationary (large construction equipment) Engineers



**APPLIED MATH SKILLS: Use of math concepts, formulas, and statistics to solve work problems**

Accountants & Auditors  
 Aircraft Pilots & Navigators  
 Chiropractor, Physician, Podiatrist, Optometrists  
 College Professors (including non-math majors)  
 Computer Programmers & Software Developers  
 Construction & Building Inspectors  
 Dentists, Orthodontists & Dental Technicians  
 Engineering Technicians & Drafters  
 Bank/Stock Managers & Financial Managers  
 Managers & Top Executives (all industries)  
 Global Computer & Internet Security Specialist  
 Insurance & Insurance Underwriters



Management Analysts & IT Consultants  
 Pharmacists & Pharmacy Technicians  
 Physician Assistants  
 Psychologists & Psychiatrists  
 Real Estate Agents, Brokers & Appraisers  
 Financial Services Sales Representatives  
 Social Media Marketing Strategist  
 Surveyors & Mapping Scientists & Technicians  
 Teachers & School Administrators  
 Technical Products Sales Representatives  
 Urban & City Planners  
 Veterinarians & Veterinarian Technicians



**THEORETICAL (RESEARCH) MATH SKILLS: Advanced math such as trig, calculus, and beyond**

Actuaries (Insurance, Government Benefits)  
 Architects & Landscape Architects  
 Biological, Chemical & Medical Scientists  
 Computer Scientists & Systems Analysts  
 Economists & Social Scientists  
 Engineers, All Types  
 Geologists, Geophysicists & Oceanographers



Mathematicians & Statisticians  
 Meteorologists & Astronauts  
 Operations Research Analysts  
 Physicists & Astronomers  
 Prosthodontists & Orthopedics Surgeons  
 Research Engineers & Research Scientists  
 Stock Market & Financial Research Analysts



**QUICK CHECK:**

1. Describe how the following workers use math:
  - a) Carpenters. b) Machinists. c) Bankers
2. To succeed in math, think of one reason why it is important to:
  - a) Attend class? b) Do your homework? c) Understand your mistakes?
3. a) Define "persevere. b) Why do you think it is important to persevere in math class?
4. a) List 7 general math skills workers need. Give one example of how these workers use general math skills:
  - b) Hair Stylist. c) Baristas at Starbucks. d) Police Officers. e) Glaziers.
5. List 3 jobs that use general math skills that you think you can do today with your math skills.
  6. a) List 3 types of math required in jobs that use practical math skills. b) List 3 interesting jobs that use practical math. c) Do you think it is worth the effort to learn algebra and geometry so that you can get hired into higher paying jobs? d) Give a reason for your answer.
  7. Describe how these workers use math to solve work problems:
    - a) Pilots flying to Hawaii? b) Orthodontists putting on braces? c) Surveyors planning freeway? d) Vet Tech giving medicine?
  8. a) List 3 interesting jobs that use math to solve work problems. b) Do you think you may like using math to solve problems on your future job? c) Give a reason for your answer.