REQUIREMENTS FOR VARIOUS ELECTRONICS JOBS AND POSITIONS

PROFESSION OR JOB TITLE	ELECTRONICS SKILLS	REQUIRED MATHEMATICS	SAMPLE EQUATION
Radio-TV repairman	Troubleshoot and repair r.f. and a.f. circuits	Algebra: basic operations powers and roots Trigonometry: knowledge of sine, cosine, and tangent functions	$P = \dfrac{E^2}{R}$
Communications maintenance and repair; FCC license	Troubleshoot and repair r.f. and a.f. circuits; some circuit modification and design	Algebra: mastery, including logarithms Trigonometry: basic operations	$P_g = 20 \log \dfrac{P_o}{P_i}$
Industrial electronics maintenance and repair	Troubleshoot and repair logic and control circuits and systems; a great deal of modification and some design	Algebra: mastery Trigonometry: mastery Calculus: understand basic terminology	$i = \dfrac{V}{R\,(1 - e^x)}$
Laboratory or research assistant (not necessarily electronics labs)	Maintain, troubleshoot, and repair standard and specialized electronic equipment; extensive circuit modification and some design	Algebra: complete mastery Trigonometry: complete mastery Calculus: familiarity with basic operations Some specialized math	$q = \displaystyle\int_0^T i\,dt$
Electronic design and associate engineer	Primarily circuit design and modification; usually require an appropriate degree, but available if you have extensive experience and are thoroughly grounded in electronics theory	Algebra: complete mastery Trigonometry: complete mastery Calculus: knowledge of differential and integral techniques	$f(x) = \left(\dfrac{1}{2\pi}\right)^{1/2} \int g(t) e^{jxt} dt$