

Mathematics

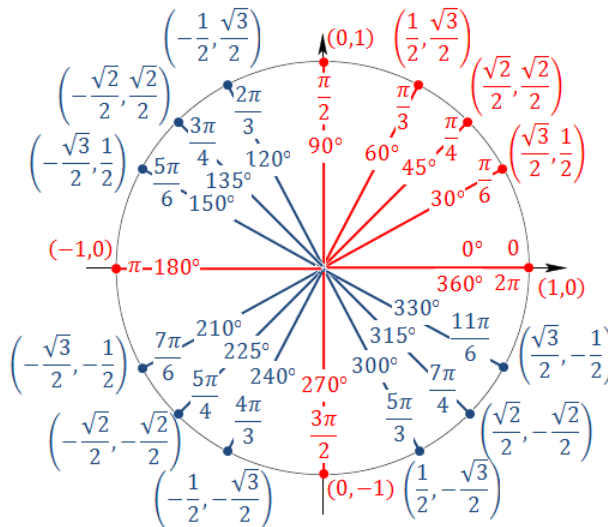
- This chapter is mainly common sense tricks on how to estimate, will simply highlight equations or numbers that I think I should know

$$\sqrt{2} = 1.4; \sqrt{3} = 1.7$$

$$\log x \approx \frac{\ln x}{2.3}$$

$$\log(n \times 10^m) = m + 0.n$$

Trigonometry



Problem Solving

Prefix	Abbr.	Power	Value	Description
Tera	T	10^{12}	1,000,000,000,000	trillion
Giga	G	10^9	1,000,000,000	billion
Mega	M	10^6	1,000,000	million
kilo	k	10^3	1,000	thousand
hecto	h	10^2	100	hundred
deka	da	10^1	10	ten
BASE	---	10^0	1	one
deci	d	10^{-1}	0.1	tenth
centi	c	10^{-2}	0.01	hundredth
milli	m	10^{-3}	0.001	thousandth
micro	μ	10^{-6}	0.000001	millionth
nano	n	10^{-9}	0.000000001	billionth
pico	p	10^{-12}	0.000000000001	trillionth

Usually do not need to memorize the conversion between metric and British system.

$$F = \frac{9}{5}C + 32$$