

Convert the following units. Fill in the table for what quantity (distance, speed, force, etc.) the unit measures and identify the prefixes' names. **Show your work!**

Convert	Quantity	Prefix Names
1. 3 mm → _____ cm		
2. 5 g → _____ kg		
3. 8 μ A → _____ mA		
4. 13 MV → _____ kV		
5. 2 k Ω → _____ Ω		
6. 2.5 mC → _____ μ C		
7. 1.35 MJ → _____ J		
8. 89 ps → _____ s		
9. 1200 W → _____ kW		
10. 45 kN → _____ cN		
11. 25 m/s → _____ km/h		
12. 10 kg m/s → _____ g cm/s		
13. $2 \times 10^2 \Omega$ → _____ $\mu\Omega$		
14. 25 cm/ms ² → _____ m/s ²		
15. 8 nm ² → _____ m ²		

Perform the following operations. Put the answers in the base units. **Show your work!**

16. 15 mg + 3 g
17. 1.5 k Ω + 101 Ω
18. 6.2 mV + 3.2 cV
19. 1250 mA – $3 \times 10^4 \mu$ A
20. 1.70 μ C – 300 nC