

# Spaghetti - Toll and Re-write

In order to re-submit your introduction assessment for re-grading, you must also submit this worksheet and get at least 90% on it. You will probably have to use outside sources beyond the course material to help you complete this worksheet.

## Units

	Unit	Symbol	Equivalent Combination
Mass			—
Length			—
Time			—
Current			—
Temperature			—
Force			
Velocity	—		
Acceleration	—		
Volume-liq			
Volume-sol			
Area	—		
Power			
Density	—		
Energy			
Frequency			
Current			
Pressure			

## Conversions

$$100 \text{ mm} \Rightarrow \text{_____} \text{ m}$$

$$1 \text{ A} \Rightarrow \text{_____} \mu\text{A}$$

$$0.89 \text{ Gs} \Rightarrow \text{_____} \text{ Ms}$$

$$0.02 \text{ N} \Rightarrow \text{_____} \text{ mN}$$

$$3141 \text{ W} \Rightarrow \text{_____} \text{ kw}$$

$$1\,234\,567 \text{ Hz} \Rightarrow \text{_____} \text{ MHz}$$

$$0.000\,387 \text{ L} \Rightarrow \text{_____} \mu\text{L}$$

$$3 \text{ GJ} \Rightarrow \text{_____} \text{ MJ}$$

$$1867 \text{ g} \Rightarrow \text{_____} \text{ kg}$$

$$0.045 \text{ V} \Rightarrow \text{_____} \text{ mV}$$

$$3274 \text{ nL} \Rightarrow \text{_____} \text{ mL}$$

$$1234 \text{ mg} \Rightarrow \text{_____} \text{ g}$$

$$0.6745 \text{ kW} \Rightarrow \text{_____} \text{ W}$$

$$86.400 \text{ s} \Rightarrow \text{_____} \text{ ks}$$

$$123 \text{ m}\Omega \Rightarrow \text{_____} \Omega$$

$$0.456 \text{ mF} \Rightarrow \text{_____} \mu\text{F}$$

$$273 \text{ MW} \Rightarrow \text{_____} \text{ GW}$$

$$200\,000 \text{ m} \Rightarrow \text{_____} \text{ km}$$

$$31\,415\,926 \text{ mm} \Rightarrow \text{_____} \text{ km}$$

$$62\,831\,852 \mu\text{g} \Rightarrow \text{_____} \text{ g}$$

$$2022 \text{ kJ} \Rightarrow \text{_____} \text{ MJ}$$

**Proposed design (detailed drawing with measurements)**

In the space below, draw a picture of your spaghetti tower. Label dimensions using metric units. If you do not know how big it was, then use a metric ruler to estimate how big it was and write the estimations on the drawing.

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**Analysis of Structure Test**

In the space below explain *What broke, Why it broke, How you would fix it so the next time you made it, it wouldn't break.*

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