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1) atoms and molecules are too small to count - so counting is done by weighing.



5.00g x

NaOH

Molar Na: 23.0

mass O: 16.0

H: 1.0

40.0g/mol

CO₂

O: 2 x 16.0 = 32.0

Molar C: 1 x 12.0 = 12.0

mass 44.0

g/mol

$$\frac{5.00\text{g NaOH/mol} / 1\text{mol CO}_2 / 44.0\text{g}}{40.0\text{g/mol NaOH/mol}} = \boxed{2.75\text{g CO}_2}$$

3) Better combustion - less pollution
Could cause cancer (formaldehyde)
HCHO

4) Cost per gram

