Chapter 1. Symboles - Numbers– Equations

1/ Symboles

- ✓ Addition : the result of this operation is the sum.

  + : plus. exp : a+b : a plus b.

- ✓ Soustraction : the result of this operation is the difference.

- : minus. exp : a-b : a minus b.

- ✓ Multiplication : the result of this operation is the product.

  x : multiplied or times. exp : axb : a times b or directly ab

- ✓ Division : the result of this operation is the quotient.

  / : divided or over. exp : a/b : a over b.

- ✓ = :equal. exp : a=b : a equal to b.

- ✓ >:greater. exp : a > b : a is greater than b.

  a ≥ b : a is greater or equal to b.

- ✓ < : less. exp : a < b : a is less than b.

  a ≤ b : a is less or equal to b.

- ✓ ≠ : different. exp : a ≠ b : a is different from b.

- ✓ ~ : approximately. exp : a ~ b : a is approximately b.

- ✓ ( ) : brackets. exp : (a+b) : a plus b between brackets.

- ✓ [ ] : Square brackets. exp : [a+b] : a plus b between square brackets.

- ✓ % : Persent

- ✓ ∞ : infinity

- ✓ $\sqrt{}$: Square root or root. exp : $\sqrt{a}$: the square root of a or root of a.

- ✓ $\sqrt[3]{}$: cube root. exp : $\sqrt[3]{a}$: the cube root of a.

- ✓ $\sqrt[4]{}$: fourth root. exp : $\sqrt[4]{a}$: the fourth root of a.

- ✓ a' : a prime

- ✓ a'' : a double prime.

- ✓ $\int$: integral. exp : $\int a$: integral of a.
- ✓ a^b . exp : a to the power of b.
- ✓ a^{-b} . exp : a to the power of minus b.

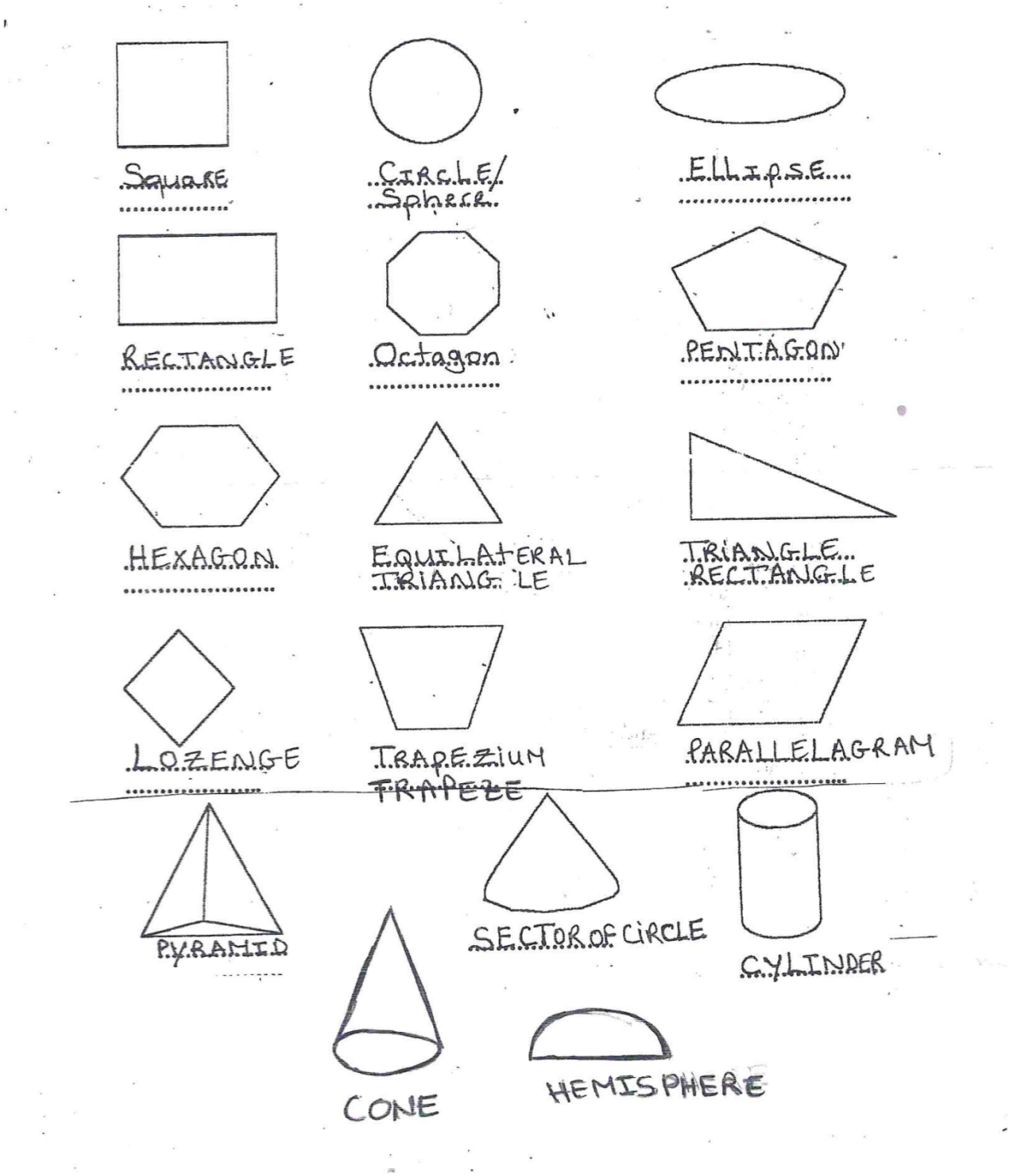
2/ Numbers

- ✓ Cardinal numbers : one, two, three, four,……
- ✓ Ordinal numbers : first, second, third, …….
- ✓ Odd numbers (numbers impaires) : 1, 3, 5, 7,……
- ✓ Even numbers (numbers paires) : 2, 4, 6, 8,……..
- ✓ 0 zero or naught exp : x_0 : x naught

3/ Equations

- ✓ x = $\frac{a+b}{c}$: x equals a plus b all over c.
- ✓ x = a + (b-c) d : x equals a plus b minus c between brackets times d.
- ✓ $x^{-p}=\frac{1}{x^p}$: x to the power minus p equals one over x to the power of p.
- ✓ $b^2=a^2(1-e)^2$: b squared equals a squared times one minus e between brackets squared.
- ✓ F(x) = x^2 : F of x equals x squared or x to the power of two.
- ✓ F(x) = x^3 : F of x equals x cubeor x to the power of three.
- ✓ F(x) = x^5 : F of x equals x to the power of five a x to the fifth.
- ✓ F = m.a : F equals m a : force is the mass times the acceleration.
- ✓ W = F.d : W equals Fd : work is the force times the distance.
- ✓ P = $.g.h$: P equals $.g.h$: pressure is the density times the gravity timer the height.
- ✓ PV= n.R.T : P times V equals n times R times T : the pressure times the volume equals the number of mols times the constant R times the temperature.

- ✓ $v^{\square}$ = d/t : V equals d over t : the speed is the distance over the time.
- ✓ E = $\frac{m.v^2}{2}$: E equals m times $v^{\square}$ squared all over 2 : the energy is the mass times the speed squared all over two.
- ✓ W= p.t : work equals p times t : work is the electrical power times the time.



4/ Shapes