

Using your tables book (Leaving Certificate)



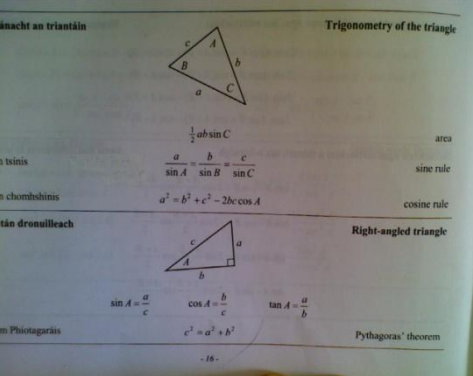
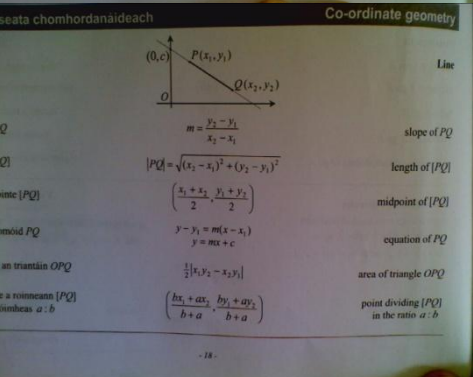
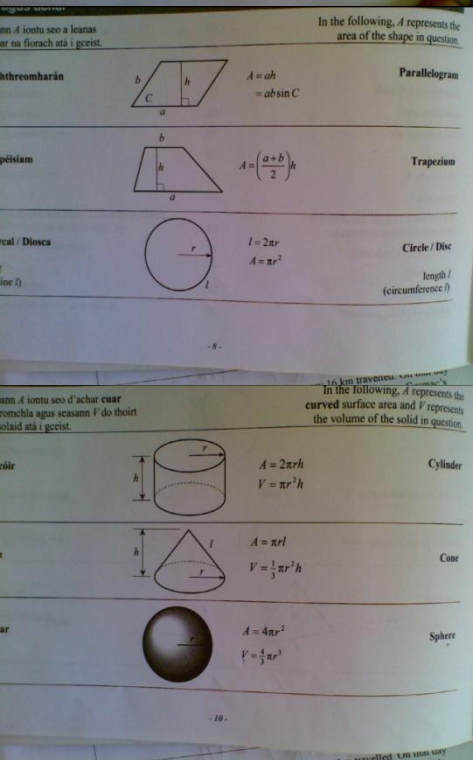
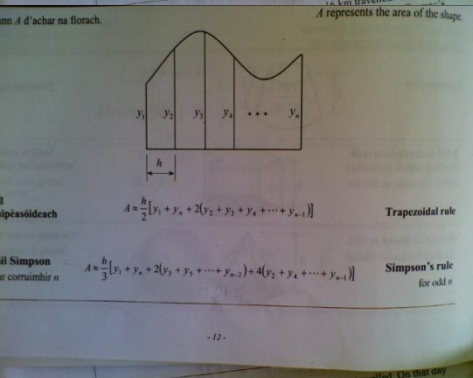
Some notes:

- You need to be familiar with the layout of the book and where to find each formula
- Don't get confused by the Irish Language on the left hand side of each page
- Learn which pages the sections you will need are on, or at least what to look for in the "Contents" page
- You need to know how to use each formula that you are going to use, not just where they are
- For quadratic equations, the "-b" formula is on the front cover!
- Don't make up your own formulas!

Paper 1:

Question/Section	Name of Formula	Picture	Page
Arithmetic/Money	Compound Interest		30 (Financial Mathematics)
Sequences/Series Formulae	Sequences/Series Formulae		22 (Sequences and Series)
Calculus	Differentiation Formulae		25 (Calculus)

Paper 2:

Section(s)	Name of Formula	Picture	Page
Geometry / Trigonometry		 <p>Trigonometry of the triangle</p> <p>Area: $\frac{1}{2} ab \sin C$</p> <p>Sine rule: $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$</p> <p>Cosine rule: $a^2 = b^2 + c^2 - 2bc \cos A$</p> <p>Right-angled triangle</p> <p>Pythagoras' theorem: $c^2 = a^2 + b^2$</p> <p>Trigonometric ratios: $\sin A = \frac{a}{c}$, $\cos A = \frac{b}{c}$, $\tan A = \frac{a}{b}$</p>	16 (Trigonometry)
Co-ordinate Geometry		 <p>Co-ordinate geometry</p> <p>Line: $P(x_1, y_1)$, $Q(x_2, y_2)$</p> <p>Slope of PQ: $m = \frac{y_2 - y_1}{x_2 - x_1}$</p> <p>Length of PQ: $PQ = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$</p> <p>Midpoint of PQ: $(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2})$</p> <p>Equation of PQ: $y - y_1 = m(x - x_1)$ or $y = mx + c$</p> <p>Area of triangle OPQ: $\frac{1}{2} x_1 y_2 - x_2 y_1$</p> <p>Point dividing PQ in the ratio a:b: $(\frac{bx_2 + ax_1}{b+a}, \frac{by_2 + ay_1}{b+a})$</p>	18 (Co-ordinate Geometry)
Length Area Volume	Area / Volume of different shapes	 <p>Parallelogram: $A = ah = ab \sin C$</p> <p>Trapezium: $A = \frac{(a+b)}{2} h$</p> <p>Circle / Díosca: $l = 2\pi r$, $A = \pi r^2$</p> <p>Cylinder: $A = 2\pi rh$, $V = \pi r^2 h$</p> <p>Cone: $A = \pi r l$, $V = \frac{1}{3} \pi r^2 h$</p> <p>Sphere: $A = 4\pi r^2$, $V = \frac{4}{3} \pi r^3$</p>	8 (Length and Area) 10 (Surface Area and Volume)
	Trapezoidal Rule	 <p>Trapezoidal rule: $A \approx \frac{h}{2} [y_1 + y_n + 2(y_2 + y_3 + \dots + y_{n-1})]$</p> <p>Simpson's rule for odd n: $A \approx \frac{h}{3} [y_1 + y_n + 2(y_2 + y_4 + \dots + y_{n-1}) + 4(y_3 + y_5 + \dots + y_{n-2})]$</p>	12 (Area Approximations)