CMA Students Newsletter (For Foundation Students)

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Paper 1: Fundamentals of Economics and Management (FEM)

THEORY OF COST

The term "Cost" is used in many sense and hence has many concepts. All these need to be properly and clearly understood.

1. **Real Costs**

- real cost included the following two basic elements:
  - exertions of all kinds of labour;
  - waiting and sacrifices required for saving the capital
- It is more a psychological concept and cannot be measured.
- Therefore, it is not applied in actual practice.

2. **Economic Costs**

The total expenses incurred by a firm in producing a commodity are generally termed as its economic costs. Economic costs are generally referred to as production costs as well.

The total economic costs include:

(i) Explicit Costs	➢ Actual payments made by a firm for purchasing or hiring resources (or factor-services) from the factor-owners or other firms are called explicit costs. ➢ These are actual money expenses directly incurred for purchasing the resources. ➢ These are the costs which a Cost Accountant includes under the head expenses of the firm. ➢ Accounting costs include all costs incurred by the firm in acquiring various inputs from outside suppliers. ❖ **Examples -** payments for raw materials and power; wages to the hired workers; rent for the factory-building; interest on borrowed money; expenses on transport and publicity, etc.
(ii) Implicit Costs	➢ It refers to the imputed costs of the factors of production owned by the producer himself which are generally left out in the calculation of the expenses of the firm. ➢ Besides purchasing resources from other firms, a producer uses his own factor-services also in the process of production. ➢ He generally does not take into account the costs of his own factors while calculating the expenses of the firm. ➢ But these costs should also be taken into account. ➢ They are called implicit costs because producers do not make payment to others for them. ❖ **Example**, rent of his own land, interest on his own capital, and salary for his own services as manager, etc.
(iii) Normal Profit	➢ Economists consider an entrepreneur as a separate and independent factor of production. ➢ An entrepreneur is a factor of production. ➢ An entrepreneur can engage himself in the work of production of a commodity only when he hopes to get a minimum amount of remuneration as profit. ➢ The minimum amount which is required to keep an entrepreneur in the production is known as normal profit. ➢ This normal profit is in a way reward or remuneration for an entrepreneur and, therefore, should be treated as costs.

Thus,
Total economic costs = Explicit costs + Implicit costs + Normal profit.

Generally economic costs include the following:
Cost of the raw materials, wages, interest, rent, management costs, depreciation of capital equipment, expenditure on publicity and advertisements, transport costs, costs of the producer's own resources, normal profit, other expenses etc.

3. Opportunity Cost

- When a factor is used in the production of a particular commodity, the society has to forgo other goods which this factor could have produced.
- This gave birth to the notion of opportunity cost in economics.
- Suppose a particular kind of steel is used in manufacturing war-goods, it clearly implies that the society has to give up the amount of utensils that could have been produced with the help of this steel.
- Hence we can say that the opportunity cost of producing war-goods is the amount of utensils forgone.
- Opportunity cost is the cost of the next-best alternative that has been forgone.

- From the meaning of opportunity cost two important points emerge:

  (i) The opportunity cost of anything is only the next-best alternative foregone and not any other alternative.

  (ii) The opportunity cost of a good should be viewed as the next-best alternative good that could be produced with the same value of the factors which are more or less the same.

Applications of Opportunity Cost

The main applications of the concept of opportunity cost are as follows –

(i) Determination of factor prices

(ii) Determination of economic rent

(iii) Decisions regarding consumption pattern

(iv) Decisions regarding production plan

(v) Decisions regarding national priorities

Cost Function

The functional relationship between cost and quantity produced is termed as cost function.

$C = f(Q_x)$

Here, C = Production-cost

Q_x = Quantity produced of x goods

Cost-function of a firm depends on two things:

(i) production-function, and

(ii) the prices of the factors of production.

Higher the output of a firm, higher would be the production-cost. That is why it is said that the cost of production depends on the quantum of output.

Time element and Cost –

Time element has an important place in the analysis of cost of production. In the theory of supply we usually take three kinds of time-period. They are:

(i) **Very Short-period -** Very short-period is defined as the period of time which is so short that the output cannot be adjusted with the change in demand. In this period, the supply of a commodity is limited to its stock, hence during this period supply remains fixed.

(ii) **Short Period -** Short period is defined as the period of time during which production can be varied only by changing the quantities of variable factors and not of fixed factors; Land, factory building, heavy capital equipment, services of management of high category are some of the factors that cannot be varied in a short period. That is why they are called fixed factors.

There are some factor-inputs that can be varied as and when required. They are called variable factors. For instance, power, fuel, labour, raw materials, etc. are the examples of variable factor inputs.

(iii) **Long Period -** Long period is defined as the period which is long enough for the inputs of all factors of production to be varied. In this period no factor is fixed, but all are variable factors.

Short-run Costs

In the short-run, a firm employs two types of factors: fixed factors and variable factors. Costs are also of two types: fixed costs and variable costs.

(i) Fixed Costs - Fixed costs (also known as supplementary costs or overhead costs) are the costs that do not vary with the output. These are the expenses incurred on the fixed factors of production.

Examples: Rent; interest; insurance premium; salaries of permanent employees, etc.

(ii) Variable Costs - Variable costs (or prime costs) are the costs that vary directly with the output. These are the expenses incurred on the variable factors of production.

Examples: Expenses on raw materials, power and fuel; wages of daily labourers, etc.

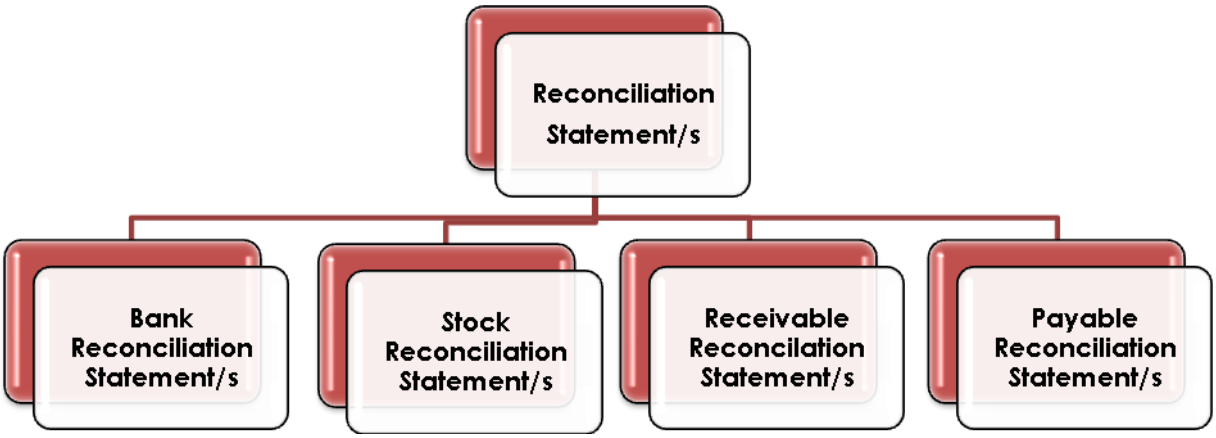
Distinctions between Fixed Costs and Variable Costs

Fixed Cost	Variable Cost
Fixed costs do not vary with quantity of output	Variable costs vary with the quantity of output.
They are related with the fixed factors.	They are related with the variable factors.
They do not become zero. They remain same even when production is stopped.	They can become zero when production is stopped.
A firm can continue production costs are not recovered even fixed costs.	Production should at least recover the variable cost.

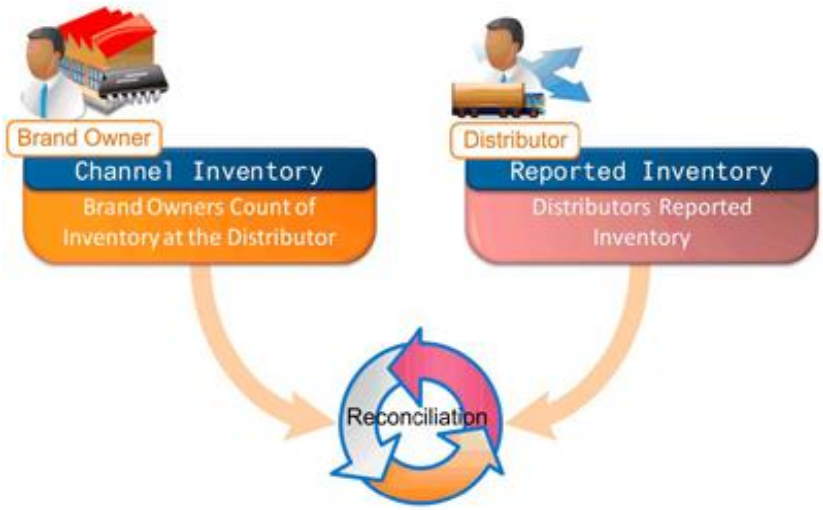
Paper 2: Fundamentals of Accounting (FOA)

RECONCILIATION STATEMENTS

We prepare 4 types of reconciliation statements:



Now we discuss about <u>Stock Reconciliation Statement</u>.



Another name of Stock Reconciliation Statement is Inventory Reconciliation Statement. Inventory Reconciliation is the vital aspect of accounting. Many medium and small businesses lack expertise and proficiency in inventory reconciliation, because it needs significant training and investment.

Reasons for preparing Stock Reconciliation Statement:

(i) Practice of all business houses to ascertain the balance of physical stock and book stock

(ii) to ascertain causes of difference, if any

Generally, stocks are valued at the closing date of the financial year. But sometimes it may so happen that the value of stock has been ascertained on a certain date instead of valuing the same on the closing date of the financial year which may either be the succeeding or preceding date of the financial year. As a result, reconciliation is to be made compulsory in order to ascertain the real position of stock.

In short, if stocks are valued at a certain date which is ***after*** the closing date of the financial year, the value of goods purchased, sold or returned are to be deducted in order to ascertain the value of the same between those two dates. On the contrary, if stocks are valued at a certain date which is ***before*** the closing date of the financial year, the above items will, however, be added.

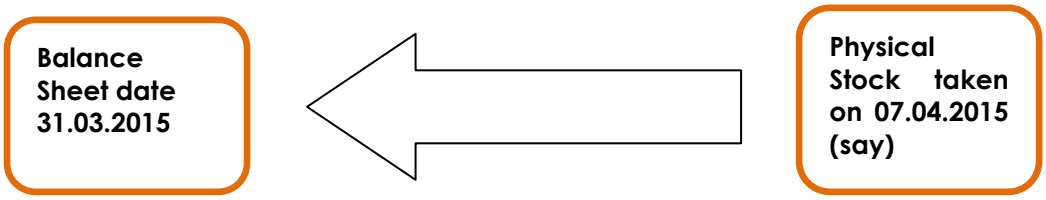
Principles to be followed

(i) Goods are purchased and invoices are passed through the books in the same accounting period, so that the liability is also taken into consideration in the same accounting period as appropriate asset.

(ii) Goods sold but not actually delivered should be included with sales for a particular accounting period but to be excluded from stock.

(iii) Goods belonging to the business, although not in its physical possession, must be included with stocks.

If Physical stock taken - after Balance Sheet date



The proforma will be

Value of Stock at the date of physical stock taking		XXX
Add: Sales [at cost] and Purchase Return between B/S Date and Stock taking date	XXX	
Stock with customers on Sale / Return [at cost]	XXX	
Stock with Consignee	XXX	
Stock with Branches	XXX	

		XXX
Less: Purchases and Sales Return [at cost] between B/S Date and stocking date	XXX	
Stock of goods received on Sale/Return and goods received as consignee	XXX	XXX
Value of Stock at the closing date of the financial year		XXX

Example

(i) Physical Stock taken on 7th April,2015 ₹90,000.

(ii) Goods received from consignor on 6th April ₹5,000. (in this case your organization is a consignee – an agent for the consignor)

(iii) Goods sent to consignee costing ₹7,000 at ₹10,000 (in this case you are the consignor and you have sent goods to the consignee) on 3rd April,2015

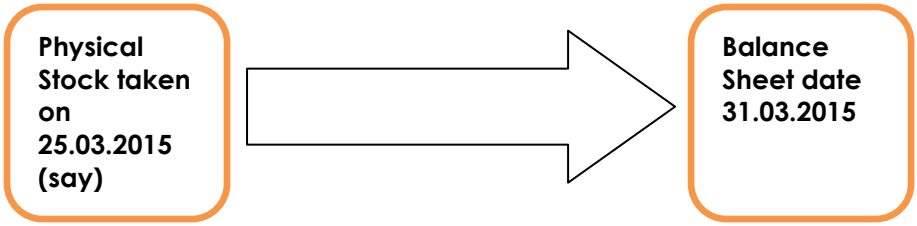
What is the value of stock for balance sheet purpose as on 31.03.2015?

Answer:

Stock Reconciliation Statement as at 31.03.2015

Particulars	₹
Value of Stock at the date of physical stock taking (07.04.2015)	90,000
Add: Goods sent to Consignee on 3rd April,2015 (added back as the ownership of the goods remains with the Consignor and not the consignee, hence forming part of book stock) – considered at cost price only	7,000
	97,000
Less: Goods received from Consignor on 6th April,2015 between B/S Date and stocking date (since not the owner of the goods, hence not forming part of book stock though is included in physical stock)	5,000
Value of Stock at the closing date of the financial year	92,000

If Physical Stock taken - Before Balance Sheet Date



The proforma will be:

Value of Stock at the date of physical stock taking		XXX
Less: Sales [at cost] and Purchase Return between B/S Date and Stock taking date	XXX	
Stock with customers on Sale / Return [at cost]	XXX	
Stock with Consignee	XXX	
Stock with Branches	XXX	
		XXX
Add: Purchases and Sales Return [at cost] between B/S Date and stocking date	XXX	
Stock of goods received on Sale/Return and goods received as consignee	XXX	XXX
Value of Stock at the closing date of the financial year		XXX

Example:

(i) Physical Stock taken on 25th March,2015 ₹63,000.

(ii) Goods returned to suppliers on 26th March,2015 ₹2,000

(iii) Goods returned by customers on 27th March,2015 ₹3,000 (at selling price on which profit made@ 20% on selling price)

What is the value of stock for balance sheet purpose as on 31.03.2015?

Answer:

Particulars	₹
Value of Stock at the date of physical stock taking (25.03.2015)	63,000
Add : Goods returned by customers on 27th March,2015 (to be considered at cost price after eliminating the profit element) = [₹3,000 less 20% of ₹3,000]	2,400
Less : Goods returned to suppliers on 26th March,2015 (these goods were not forming part of closing stock on the balance sheet date, hence deducted)	2,000
Value of Stock at the closing date of the financial year	63,400

Paper 3: Fundamentals of Laws and Ethics (FLE)

THE NEGOTIABLE INSTRUMENTS ACT, 1881

Introduction

The law relating to negotiable instruments is contained in the Negotiable Instruments Act, 1881 which applies and extends to the whole of India.

Negotiable Instruments

Definition:

The word ***negotiable*** means 'transferable by delivery,' and the word ***instrument*** means 'a written document by which a right is created in favour of some person.'

Thus, the term "***negotiable instrument***" literally means 'a written document which creates a right in favour of somebody and is freely transferable by delivery.'

A negotiable instrument is a piece of paper which entitles a person to a certain sum of money and which is transferable from one to another person by a delivery or by endorsement and delivery.

Characteristics of Negotiable Instruments

1. Free transferability or easy negotiability

- Negotiable instrument is freely transferable from one person to another without any formality.
- The property (right of ownership) in these instruments passes by either endorsement and delivery (in case it is payable to order) or by delivery merely (in case it is payable to bearer) and no further evidence of transfer is needed.

2. Title of holder is free from all defects

- A person who takes negotiable instrument bona-fide and for value gets the instrument free from all defects in the title. The holder in due course is not affected by defective title of the transferor or of any other party.

3. Transferee can sue in his own name without giving notice to the debtor:

- A bill, note or a cheque represents a debt, i.e., an "actionable claim" and implies the right of the creditor to recover something from hid debtor
- The creditor can either recover this amount himself or can transfer his right to another person

- In case he transfers his right, the transferee of a negotiable instrument is entitled to sue on the instrument in his own name in case of dishonour, without giving notice to the debtor of the fact that he has become holder
- In case of transfer or assignment of an ordinary "actionable claim" (i.e., a book debt evidenced by an entry by the creditor in his account book, under the transfer of property act, notice to the debtor is necessary in order to make the transferee entitled to sue in his own name

4. Presumptions:

Certain presumptions apply to all negotiable instruments.

Section 118 and 119 lay down the following presumptions:

(a) **For consideration**: that every negotiable instrument, was made, drawn, accepted, endorsed or transferred for consideration.

(b) **As to date**: that every negotiable instrument bearing a date was made or drawn on such date.

(c) **As to time of acceptance**: that every bill of exchange was accepted within a reasonable time after its date and before its maturity.

(d) **As to transfer:** that every transfer of a negotiable instrument was made before its maturity

(e) **As to time of endorsements**: that the endorsements appearing upon a negotiable instrument were made in the order in which they appear thereon.

(f) **As to stamps**: that a lost promissory-note, bill of exchange or cheque was duly stamped.

(g) **As to a holder in due course**: that every holder of a negotiable instrument is holder in due course (this presumption would not arise where it is proved that the holder has obtained the instrument from its lawful owner, or from any person in lawful custody thereof, by means of an offence, fraud or for unlawful consideration and in such a case the holder has to prove that he is a holder in due course

(h) **As to dishonour:** that the instrument was dishonoured, in case a suit upon a dishonoured instrument is filed with the court and the fact of protest is proved

Types of Negotiable Instruments

Negotiable Instruments recognized by status	Negotiable instruments recognized by usage or customs of trade
e.g. Bills of exchange, cheque and promissory notes.	e.g. Bank notes, exchequer bills, share warrants, bearer debentures, dividend warrants, share certificate

Promissory Note

Definition:

According to Section 4, "A promissory note is an instrument in writing (not being a bank-note or a currency-note) containing an unconditional undertaking, signed by the maker, to pay a certain sum of money only to, or to the order of, a certain person, or to the bearer of the instrument."

Specimen of a Promissory Note

₹ 10,000/-	Kolkata
	April 30, 2015
On demand, I promise to pay Amit, s/o Arun Das of Murshidabad or order a sum of ₹ 10,000/- (Rupees Ten Thousand only), for value received.	
To, Amit Das	Sd/ Sumit
Address……	Stamp

Parties to a Promissory Note

There are primarily two parties involved in a promissory note. They are:

(i) The Maker or Drawer: The person who makes the note and promises to pay the amount stated therein. In the above specimen, Sumit is the maker or drawer.

(ii) The Payee – the person to whom the amount is payable. In the above specimen it is Amit.

In course of transfer of a promissory note by payee and others, the parties involved may be –

(a) The Endorser – the person who endorses the note in favour of another person. In the above specimen if Amit endorses it in favour of Ranjan and Ranjan also endorses it in favour of Puneet, then Amit and Ranjan both are endorsers.

(b) The Endorsee – the person in whose favour the note is negotiated by endorsement. In the above, it is Ranjan and then Puneet.

Essentials of Promissory Note

1. **It must be in writing:**
   - A promissory note has to be in writing
   - An oral promise to pay does not become a promissory note
   - The writing may be on any paper or book
   - **Illustrations**: A signs the instruments in the following terms:
     - "I promise to pay B or order ₹ 500"
     - "I acknowledge myself to be indebted to B in ₹ 1, 000 to be paid on demand, for value received"

     Both the above instruments are valid promissory notes.

2. **It must contain a promise or undertaking to pay:**
   - There must be a promise or an undertaking to pay
   - The undertaking to pay may be gathered either from express words or by necessary implication
   - A mere acknowledgement of indebtedness is not a promissory note, although it is valid as an agreement and may be sued upon as such
   - **Illustrations**: A signs the instruments in the following terms:
     - "Mr. B I owe you ₹ 1,000"
     - "I am liable to pay to B ₹ 500"

     The above instruments are not promissory notes as there is no undertaking or promise to pay. There is only an acknowledgement of indebtedness.

   - Where A signs the instrument in the following terms:
     - "I acknowledge myself to be indebted to B in ₹ 1, 000, to be paid on demand, for value received," there is a valid promissory note

3. **The promise to pay must be unconditional:**
   - A promissory note must contain an unconditional promise to pay
   - The promise to pay must not depend upon the happening of some uncertain event, i.e., a contingency or the fulfillment of a condition

- **Illustrations**: A signs the instruments in the following terms:
  - "I promise to pay B ₹ 500 seven days after my marriage with C"
  - "I promise to pay B ₹ 500 as soon as I can"

  The above instruments are not valid promissory notes as the payment is made depending upon the happening of an uncertain event which may never happen and as a result the sum may never become payable

4. **It must be signed by the maker:**
   - It is imperative that the promissory note should be duly authenticated by the 'signature' of the maker
   - 'Signature' means the writing or otherwise affixing a person's name or a mark to represent his name, by himself or by his authority with the intention of authenticating a document

5. **The maker must be a certain person:**
   - The instrument must itself indicate with certainty who is the person or are the persons engaging himself or themselves to pay
   - Alternative promisors are not permitted in law because of the general rule that "where liability lies no ambiguity must lie"

6. **The payee must be certain:**
   - Like the maker the payee of a pronote must also be certain on the face of the instrument
   - A note in favour of fictitious person is illegal and void
   - A pronote mad epayable to the maker himself is a nullity, the reason being the same person is both the promisor and the promisee

7. **The sum payable must be certain:**
   - For a valid pronote it is also essential that the sum of money promised to be payable must be certain and definite
   - The amount payable must not be capable of contingent additions or subtractions

   - **Illustrations**: A signs the instruments in the following terms:
     - "I promise to pay B ₹ 500 and all other sums which shall be due to him"
     - "I promise to pay B ₹ 500, first deducting there out any money which he may owe me"

     The above instruments are invalid as promissory notes because the exact amount to be paid by A is not certain

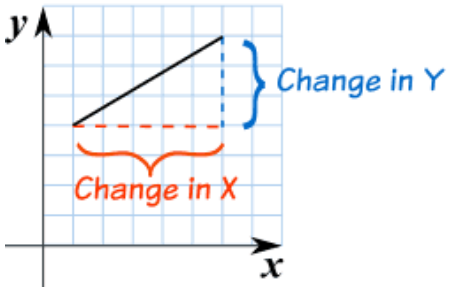
8. **The amount payable must be in legal tender money of India:**
   - A document containing a promise to pay a certain amount of foreign money or to deliver a certain quantity of goods is not a promote

Paper 4: Fundamentals of Business Mathematics and Statistics (FBMS)

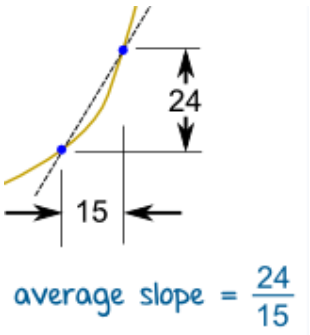
INTRODUCTION TO DERIVATIVES

It is all about slope!

$$\textbf{Slope} = \frac{\text{Change in Y}}{\text{Change in X}}$$

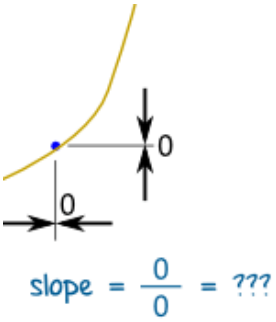


We can find an **average** slope between two points.



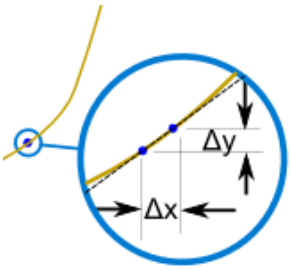
But how do we find the slope **at a point**?

There is nothing to measure!



But with derivatives we use a small difference ...

... then have it **shrink towards zero**.



Let us Find a Derivative!

We will use the slope formula:

$$\textbf{Slope} = \frac{\text{Change in Y}}{\text{Change in X}} = \frac{\Delta y}{\Delta x}$$

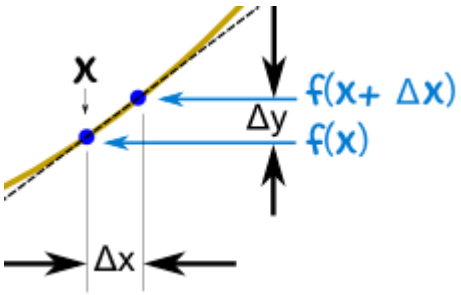
to find the derivative of a function y **= f(x)**

x changes from **x** to **x+Δx**

y changes from **f(x)** to **f(x+Δx)**

Follow these steps:

- Fill in this slope formula: $\frac{\Delta y}{\Delta x} = \frac{f(x+\Delta x) - f(x)}{\Delta x}$
- Simplify it as best we can,
- Then make **Δx** shrink towards zero.



Here we go:

Example: the function **f(x) = x²**

We know **f(x) = x²**, and can calculate **f(x+Δx):**

Start with: **f(x+Δx) = (x+Δx)²**

Expand $(x + \Delta x)^2$: **f(x+Δx) = x² + 2x Δx + (Δx)²**

Start with the slope formula: $\frac{f(x+\Delta x) - f(x)}{\Delta x}$

Put in **f(x+Δx)** and **f(x)**: $\frac{x^2 + 2x\,\Delta x + (\Delta x)^2 - x^2}{\Delta x}$

Simplify (x^2 and $-x^2$ cancel): $= \frac{2x\,\Delta x + (\Delta x)^2}{\Delta x}$

Simplify more (divide through by Δx): = **2x + Δx**

And then **as Δx heads towards 0** we get: = 2x

Result: the derivative of x² is 2x

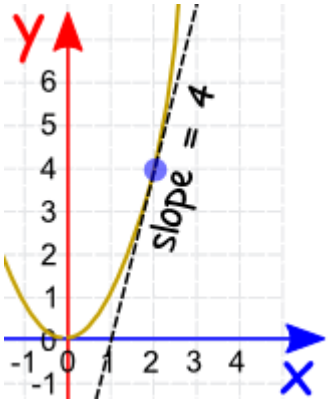
We write **dx** instead of **"Δx heads towards 0"**, so "the derivative of" is commonly written $\frac{d}{dx}$

$$\frac{d}{dx} x^2 = 2x$$

"The derivative of x^2 equals $2x$"

or simply "d dx of x^2 equals $2x$"

What does $\frac{d}{dx} x^2 = 2x$ mean?



It means that, for the function x^2, the slope or "rate of change" at any point is **2x**.

So when **x=2** the slope is **2x = 4**, as shown here:

Or when **x=5** the slope is **2x = 10**, and so on.

Note: sometimes **f'(x)** is also used for "the derivative of":

$$f'(x) = 2x$$

"The derivative of **f(x)** equals **2x**"

Let's try another example.

Example: What is $\frac{d}{dx} x^3$?

We know **$f(x) = x^3$**, and can calculate **f(x+Δx):**

Start with: **$f(x+\Delta x) = (x+\Delta x)^3$**

Expand $(x + \Delta x)^3$: **$f(x+\Delta x) = x^3 + 3x^2\,\Delta x + 3x\,(\Delta x)^2 + (\Delta x)^3$**

The slope formula: $\frac{f(x+\Delta x) - f(x)}{\Delta x}$

Put in **f(x+Δx)** and **f(x)**: $\frac{x^3 + 3x^2\,\Delta x + 3x\,(\Delta x)^2 + (\Delta x)^3 - x^3}{\Delta x}$

Simplify (x^3 and $-x^3$ cancel): **$= 3x^2 + 3x\,\Delta x + (\Delta x)^2$**

And then **as Δx heads towards 0** we get: $\frac{d}{dx} x^3 = 3x^2$