Percentage Increase & Decrease

Exercise 1 – Non Calculator Questions

1 A lawnmower costing £130 is **reduced** by 50% in a sale.
   Calculate the sale price of the lawnmower.

2 A Gamestation costing £120 is in the sale marked "***25% discount***."
   Calculate the sale price of the game station.

3 A pair of shoes are **reduced** by 10%.
   If the shoes cost £50 full price, how much are they after the discount?

4 Simon has a new bike which should have cost him £350 from the
   factory. He received a 20% **discount** for taking the shop display bike.
   How much did Simon pay for the bike?

5 A tourist helicopter ride to the Grand Canyon costs £162. Children
   under 5 years of age receive a 75% **discount**. How much does it cost
   for a child under 5 years of age to visit the Grand Canyon?

6 A shampoo bottle usually holds 240ml. In a special offer 25% is **added**
   to the contents. Calculate the amount of shampoo in the special offer
   bottle.

7 A cake shop decides to **increase** the weight of each cake by 20%. Each
   cake used to weigh 1600g. How much does each cake weigh now?

8 A painting costing £320 has its price **raised** by 50%. How much does
   the painting cost now?

9 A man buys a car at an auction for £2460. He fixes it up and sells it with
   a price **increase** of 20%. How much does he sell it for?

10 A recipe uses 72g of sugar. Mrs Helder decides to **increase** this amount
    by 25%. How much sugar does Mrs Helder need?

Exercise 2

1 Milk costs 80p per litre, but the price is expected to rise shortly by 5%.
   What will the new cost of a litre of milk be?

2 Johnny takes the local bus to school. His return fare is £1·50 per day.
   The bus company decides to increase all their fares by 20%.
   What will Johnny's new return fare be?

3 In a sale a pair of shoes, normally priced at £47·52, are reduced by 25%,
   What is the sale price of the shoes?

4 The average attendance at a football stadium last season was 48000.
   This season it has dropped by 15%.
   What is the average attendance at the stadium this season?

5 Farmer Yates had 60 cattle, but due to an outbreak of sickness he lost
   85% of his herd. How many cattle does he still have left?

Exercise 3 – Calculator Questions

1 Calculate the sale price of the following items with the **reductions**
   stated:

	ITEM	NORMAL PRICE	DISCOUNT
(a)	T.V	£350	15%
(b)	D.V.D Player	£260	65%
(c)	Hi-Fi System	£850	30%
(d)	Shirt	£35	45%
(e)	Ornament	£15·80	25%
(f)	Table	£840	15%
(g)	Carpet	£688	14%
(h)	Fitted Kitchen	£5,800	24%
(i)	Magazine	£1·40	20%
(j)	Bag of sweets	£1·15	60%
(k)	Shoes	£52	5%

2 Calculate the new price of the following items after the following **increases:**

	ITEM	COST	INCREASE
(a)	Laptop	£400	12%
(b)	Camera	£560	35%
(c)	Calculator	£12	14%
(d)	Playstation	£200	32%
	ITEM	COST	INCREASE
(e)	Ornament	£34	26%
(f)	Book	£15.50	16%
(g)	CD	£12	11%
(h)	Jacket	£55	23%

Exercise 4

1 Calculate the sale price of the following items with the reductions stated:

	ITEM	NORMAL PRICE	DISCOUNT
(a)	T.V.	£350	15%
(b)	V.C.R.	£440	22%
(c)	HI-FI System	£849	18%
(d)	Skirt	£84.20	37%
(e)	Shirt	£35.60	28%
(f)	Ornament	£64.85	45%
(g)	Table	£220	7½ %
(h)	Carpet	£640	18½ %
(i)	Fitted Kitchen	£5,800	26%
(j)	Magazine	85p	11%
(k)	Bag of sweets	£1.19	24%
(l)	Shoes	£44.44	4¼ %

2 Calculate the new price of the following items after the following **increases:**

	ITEM	COST	INCREASE
(a)	Laptop	£487	13%
(b)	Camera	£250·50	35%
(c)	Calculator	£8·49	12%
(d)	Playstation	£199·50	21%
(e)	Ornament	£34·20	24%
(f)	Book	£15·50	17%
(g)	CD	£9·99	11%

Exercise 5 – Further Problems

1 A salesman has a salary of £16500. He receives a bonus of 4% of his salary. How much does he get altogether?

2 £820 is divided between 2 ladies. One gets 65%.
How much does **each** receive?

3 In a class of 40 pupils, 55% are girls. How many boys are there?

4 In 1981, the population of a town was 8030. By 1991, the population was just 90% of this figure. What was the population in 1991?

5 A car cost £12460 when new. A year later, its value was only 75% of this.   What was its value a year later?

6 The composition of brass by weight is **64% copper, 32% zinc** and **the remainder is lead**. Find the weight of
(a) copper   **(b)** zinc   **(c)** lead in 650 kg of brass.

7 During a sale, all items are sold with 15% off their usual cost. What is the sale price of a CD which usually costs £12·20?

8 There are 40 people in a doctor's waiting room. 65% are **male**.
How many are **female**?

9 The rental on a flat is £360 per month. Ted and Lucy get a special deal and only have to pay 85% of this. How much did they pay per month?