- C-	ALLADO I'	CATURARA	,
31	ANDREW-	CATHEDRA	L.,

Ans: (a)

(b)

LCULATOR SECT	IOIN: Show heres	ssary working in the spa	ice provided
simplest form, of b The daily hours of	the rainfall of Sydney to the sunshine average in Sydr	n and for Brisbane is 1 200 mm ne rainfall of Brisbane? ney is 6.8 hours and in Brisbar of sunshine in Sydney to that	ne is 8 hours. What
	*		
			· .
: (a)			
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(b)s.2. The 1986 census gave 281 878 were born	in Italy	figures of Australia's then pop	oulation of 15 602
s.2. The 1986 census gave 281 878 were born 137 637 were born 56 341 were born 211 670 were born A newspaper wishes to simplifying the ratios which the newspaper a Italian-born Austral b Greek-born Austral	in Italy in Greece n Lebanon in New Zealand to inform the public on com as much as possible so that might use to describe the co lians to Greek-born Australi ians to Lebanese-born Aust Italy, Greece, Lebanon or I	iparisons between these number they make sense to the ordination of:	ers. They do this bury reader. Give a r
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281 878 were born 137 637 were born 56 341 were born 211 670 were born A newspaper wishes t simplifying the ratios which the newspaper a Italian-born Austral b Greek-born Austral c Australians born in Australia or elsewhe	in Italy in Greece n Lebanon in New Zealand to inform the public on com as much as possible so that might use to describe the co lians to Greek-born Australi ians to Lebanese-born Aust Italy, Greece, Lebanon or I	parisons between these number they make sense to the ordinate of the ordinate	ers. They do this by
S.2. The 1986 census gave 281 878 were born 137 637 were born 56 341 were born 211 670 were born A newspaper wishes to simplifying the ratios which the newspaper a Italian-born Austral b Greek-born Austral c Australians born in	in Italy in Greece n Lebanon in New Zealand to inform the public on com as much as possible so that might use to describe the co lians to Greek-born Australi ians to Lebanese-born Aust Italy, Greece, Lebanon or I	parisons between these number they make sense to the ordinate of the ordinate	ers. They do this bury reader. Give a r

Ques.4.	was 16-833 million.							
	a Calculate thb Calculate th	ne number of ne total numb	f litres of milk of the of the of litres of the	consumed per nilk drunk on	person pe an averag	r day. e day.		
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Ans: (a)	<u>Barrage and the second and the seco</u>				- I GOLD DE SOURCE CONTROL CON			
(I-)								
(b)								
Ques.5.		1.4			e -:	<u>-</u>		
~	•		in 46 metres.					
-	a How manyb How many	times does i	t turn in 1 metr it turn in 1 km?	re?				
-\ -\						•		٠
\ .					\$			
		:					4	
Ans: (a)								
	\				•			
(b)			arzonezannoù molet arretter et arrette		Well-terrories and an artist and an artist and artist artist and artist and artist artist and artist artist and artist artist and artist	CONTRACTOR OF THE PROPERTY OF		
Ques.6.			•					
Q 2200101	In a 25%-off	sale a 10% f	further discoun	t was given fo	r large pur	chases. As we	II, a further 3'	‰was at was the
•	original full	cash paymer orice?	nt. A customer	receiving all t	nree disco	unts was to pa	iy ,p7⊃• 4 0. ₩1	at was on
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<u> </u>				· ·				
Ans:						himarorasa		

Page 3.

Ones	7
Outs	• / :

Successive discounts of 10% and 20% on a purchase of \$300 means the purchaser receives a discount of 10% of \$300 and then a discount of 20% on the balance of \$270 (\$300 less 10% of \$300). Another faster method is to calculate 80% of (90% of \$300).

- a Does it matter if the discounts are calculated in the order 10% then 20% or 20% then 10%?
- b Do two successive discounts of 50% and 50% mean the article is free?
- c i Do three successive discounts of $33\frac{1}{3}\%$ mean the article is free?
 - ii Calculate the purchase price on $51\ 000$ with three successive discounts of $33\frac{1}{3}\%$, $33\frac{1}{3}\%$ and $33\frac{1}{3}\%$.
 - iii To what single discount do the three successive discounts correspond?

Ans:	pt.,				A-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-					
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(c) (i)		ercenson, automobile (supplemente)	market and the second	and have the second	NEW TOTAL PROPERTY OF THE PROP	ar missioner er eksteere	COLUMN DE STORES DE STATES			,
(ii)								23		. S
			Consumption of the second second		HISTORY - COLUMN TO THE PARTY OF THE PARTY O	T-100 MATERIAL STATE OF STATE	and the second s	2		

O	~~ 0
1 717	es.a.

In 1966, average weekly earnings were approximately \$65-00

In 1996, average weekly earnings were approximately \$650.00

- a What is the ratio of increase?
- b Based on this, what would you expect the cost of the following to be in 1996? Their cost in 1966 is given.

i newspaper (Sunday)

\$0.10c

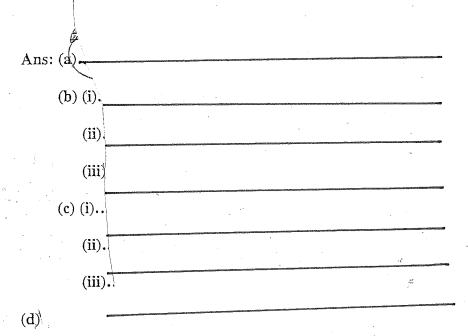
ii student rail ticket

\$0.15c

iii petrol

8.9c per litre

- c What might the cost of the following have been in 1966?
 - i a loaf of bread (in 1996 the price was \$1.90)
 - ii a postage stamp (in1996 the cost was 45c)
 - iii a phone call (in 1996 the cost was 40c)
- d Do you think some items are relatively cheaper in 1996 than in 1966 or vice versa?



Ques.9. Change the following recurring decimals to fractions. .

(a) 0.56

(b) 0.1278

YEAR 9 ADVANCE	ED MATHEMATICS
Topic 2	

CALCULATOR SECTION:

Show necessary working in the space provided

Ques.1. a The rainfall average for Sydney is 1 220 mm and for Brisbane is 1 200 mm. What is the ratio, in simplest form, of the rainfall of Sydney to the rainfall of Brisbane?

b The daily hours of sunshine average in Sydney is 6.8 hours and in Brisbane is 8 hours. What is the ratio, in simplest form, of the average hours of sunshine in Sydney to that in Brisbane?

Ans: (a) 6/:60 (b) /7: 20

Ques.2. The 1986 census gave the following breakdown figures of Australia's then population of 15 602 156.

137 637 were born in Greece

56 341 were born in Lebanon

211 670 were born in New Zealand

A newspaper wishes to inform the public on comparisons between these numbers. They do this by simplifying the ratios as much as possible so that they make sense to the ordinary reader. Give a ratio which the newspaper might use to describe the comparison of:

a Italian-born Australians to Greek-born Australians

b Greek-born Australians to Lebanese-born Australians

c Australians born in Italy, Greece, Lebanon or New Zealand to all other Australians (those born in Australia or elsewhere).

281878 : 137 637

137637 : 56341

687.526 : 14.914 630

Ans (a) 2:1 (b) 3:1 (c) 1:20

Ques.3. A typical human heart pumps 65 mL of blood per beat at an average of 70 times per minute.

a Calculate the number of litres pumped in 1 minute.

b Calculate the number of litres pumped by Jane's heart in her 15 years.

(b) 35,872 200 L

Im

Page 2

Ques.4. Australians consumed 100.9 L of milk per person in 1988-89 financial year. The population at that time was 16-833 million.

a Calculate the number of litres of milk consumed per person per day.

b Calculate the total number of litres of milk drunk on an average day.

Ans: (a) 0.276 L e 0.28 L ~ 280 m L (b) .4,653,286.849 => 4.65 million L

Ques.5.

A car tyre turns 100 times in 46 metres.

a How many times does it turn in 1 metre?

b How many times does it turn in 1 km?

2017 times (b) 2174 turns

Zm

Ques.6.

In a 25%-off sale a 10% further discount was given for large purchases. As well, a further 3% was deducted for each payment. A customer receiving all three discounts was to pay \$75.48. What was the original full price?

Original rull price?

Discounted Price = \$75.48

Previous Price before (ast discount = 103/ of \$75.68

Next Previous Price before discount = 10/ of \$77.7444

Next Previous Price before discount = 10/ of \$75.51886

Ans: Orienal Price = 125/ of \$85.51886

Int. GO

Successive discounts of 10% and 20% on a purchase of \$300 means the purchaser receives a discount of 10% of \$300 and then a discount of 20% on the balance of \$270 (\$300 less 10% of \$300). Another faster method is to calculate 80% of (90% of \$300).

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- ii Calculate the purchase price on \$1 000 with three successive discounts of $33\frac{1}{3}\%$, $33\frac{1}{3}\%$ and $33\frac{1}{3}\%$.
- iii To what single discount do the three successive discounts correspond?

	Ans: (a)	
	(b)	~ ~
	(c) (i). <i>NO</i>	
	(ii) $$296.30^{-}$ $\rightarrow 6673 + $1000 = 66673	
	(iii) 70/c 6638 f \$6663 = \$4445 = \$296:30	
Vicont:	original Price - Discounted Price. [Could also x by 3 etc]	
	= \$1880 -\$296.30 = \$703.70	
Single	Discount = \$703.70 × 100 }	
•	$= 70.37 \frac{1}{6}$	

Ques.8. In 1966, average weekly earnings were approximately \$65-00 In 1996, average weekly earnings were approximately \$650-00 a What is the ratio of increase? b Based on this, what would you expect the cost of the following to be in 1996? Their cost in 1966 is given. i newspaper (Sunday) ii student rail-ticket \$0-15c 8-9c per litre iii petrol c What might the cost of the following have been in 1966? i a loaf of bread (in 1996 the price was \$1.90) ii a postage stamp (in 1996 the cost was 45c) iii a phone call (in 1996 the cost was 40c) d Do you think some items are relatively cheaper in 1996 than: \$585 : \$65 [Remarker Increse : Original] Ans: (a) 9 : 1 (b) (i) \$0.90 (ii) \$1.35 (c) (i).....2/ Ques.9. Change the following recurring decimals to fractions. (a) 0.56 Let 10000)c = 1278.1278/278 -12 = 0.1278/278 Let 100x = 56.565656--992 = 56 999900 = 1278 $30 = \frac{1278}{9999}$ X = 56

5m

- END OF TOPIC TEST-NUMBER -