

# *PERFORM FINANCIAL CALCULATIONS*

## *PRACTICAL APPLICATIONS*

### *FINANCIAL SKILLS TRAINING PACKAGE*



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# MANUAL CALCULATIONS

## ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION

### PRACTICAL APPLICATION 1

Cross Balance the following, calculating the total stores for each of the following goods-and months.

MONTHS	JUNIOR FICTION	JUNIOR NON-FICTION	CULTURE & HISTORY	POETRY	TOTAL
May	214	312	104	237	
June	168	227	116	384	
July	137	88	87	208	
August	378	126	169	148	
September	104	213	164	202	
GRAND TOTAL					

Balance the following calculating the total number in stock as at 31/1/20XX

PRODUCT	STOCK AS AT 1/1/20XX	SOLD	RETURNED	TOTAL IN STOCK AS AT 31/1/20XX
Junior Fiction	438	241	23	
Junior Non-Fiction	1042	973	164	
Culture & History	986	731	231	
Poetry	482	221	29	

Extend the following items and total the invoice.

PRODUCT	QUANTITY	AMOUNT PER BOOK	TOTAL PAYABLE
Dark Emu	16	\$19.99	
Girls Can Fly	109	\$16.99	
Benevolence	37	\$29.99	
Little Bird's Day	101	\$24.99	
Respect	116	\$24.99	
TOTAL			

Calculate the unit price of the following goods:

PRODUCT	QUANTITY	TOTAL AMOUNT	UNIT PRICE (ie, Price for 1)
Brother Moon	15	\$374.85	
Yinti	12	\$155.88	\$
Simply Ing	31	557.69\$	\$
Kindred	8	\$119.92	\$

**PRACTICAL APPLICATION 2**

Cross balance the following, calculating the total stores for each of the following goods and months.

MONTHS	MEMOIRE & BIOGRAPHY	FICTION	NEW RELEASE	YOUNG ADULT	TOTAL
May	305	414	290	125	
June	296	328	285	306	
July	137	39	24	209	
August	127	287	294	139	
September	104	175	124	109	
GRAND TOTAL					

Balance the following calculating the total number in stock as at 31/1/20XX

	STOCK AS			TOTAL IN STOCK
PRODUCT	at 1/1/20xx	SOLD	RETURNED	AS AT 31/1/20XX
Memoire & Biography	796	507	354	
Fiction	487	372	98	
New Release	847	586	308	
Young Adult	1077	973	164	

Extend the following items and total the invoice.

PRODUCT	QUANTITY	AMOUNT PER BOOK	TOTAL PAYABLE
Blackwork	16	\$19.99	
Kindred	109	\$24.99	
Lemons in the Chicken Wire	37	\$22.95	
A Most Peculiar Act	101	\$24.95	
A Boy's Life	116	\$16.99	
TOTAL			

Calculate the unit price of the following goods.

PRODUCT	QUANTITY	TOTAL AMOUNT	UNIT PRICE (ie, Price for 1)
Black Cockatoo	15	\$179.85	\$
Silly Birds	120	\$2994.00	\$
Mad Magpie	31	\$773.45	\$
Traditional Healers	8	\$399.60	\$

**CONVERTING SIMPLE FRACTIONS**

Convert the following fractions to decimals, correct to two decimal places.

**PRACTICAL APPLICATION 1**

1/2 \_\_\_\_\_  
 1/3 \_\_\_\_\_  
 1/4 \_\_\_\_\_  
 2/8 \_\_\_\_\_  
 3/4 \_\_\_\_\_

**PRACTICAL APPLICATION 2**

2/3 \_\_\_\_\_  
 6/8 \_\_\_\_\_  
 5/7 \_\_\_\_\_  
 3/6 \_\_\_\_\_  
 6/9 \_\_\_\_\_

**PERCENTAGES****PRACTICAL APPLICATION 1**

Calculate the profit on each of the following goods by working out the percentage mark-up of the purchase price.

PRODUCT	PURCHASE PRICE \$	% MARK UP	PROFIT \$
Blackwork	\$19.99	66%	
Kindred	\$24.99	75%	
Lemons in the Chicken Wire	\$22.95	80%	
A Most Peculiar Act	\$24.95	60%	
A Boy's Life	\$16.99	35%	

**PRACTICAL APPLICATION 2**

Calculate the following taxation amounts to be deducted from each employee's wages.

EMPLOYEE	WAGES	RATE OF TAX	AMOUNT OF TAX
H Wilson	\$957.00	40%	
B Canton	\$380.00	25%	
I M Reader	\$880.00	45%	
P Bradley	\$350.00	30%	
M Howard	\$568.00	20%	

**CALCULATOR CALCULATIONS****ADDITION, SUBTRACTION, MULTIPLICATION, DIVISION - CALCULATOR****PRACTICAL APPLICATION 1**

Complete the following petty cash sheet:

	VOUCHER	AMOUNT			
DETAILS	NO	SPENT_	TRAVEL	POSTAGE	MISC -
Photocopy paper	005	64.93			64.93
Stamps	006	80.2		80.2	
Bus Fares	007	7.83	7.83		
Magazines	008	28.17			28.17
Lunch	009	79.47			79.47
Cleaning	010	36.42			36.42
Stamps	011	185.05		185.05	
Taxi	012	89.32	89.32		
TOTAL					

Complete the following sales summary for Bagabala Books.

DAY	JUNIOR ADULT	POETRY	SUB-TOTAL	RETURNS	TOTAL
Monday	\$ 4,313.25	\$ 2,876.92		176.51	
Tuesday	\$ 2,276.01	\$ 631.52		289.33	
Wednesday	\$ 1,902.34	\$ 2,079.00		277.32	
Thursday	\$ 3,365.21	\$ 247.88		453.16	
Friday	\$ 271.38	\$ 991.65		Nil	

Complete the following statement by adding debits and subtracting credits.

DETAILS	DEBIT	CREDIT	BALANCE
Balance brought forward	900.57		900.57
Invoice 878	895.00		
Invoice 739	6,179.00		
Cheque No 38742		540.00	
Invoice 830	54.00		
Credit Note 83		540.75	
Invoice 902	760.00		
Invoice 993	1,090.00		
Cheque No 56938		213.00	
Invoice 1009	514.00		
BALANCE OWING			

Calculate the price per unit for each of the following goods.

GOODS	NO PURCHASED	TOTAL PRICE	PRICE PER UNIT
Black Cockatoo	15	\$179.85	
Silly Birds	120	\$2994.00	
Mad Magpie	31	\$773.45	
Traditional Healers	8	\$399.60	
Black Cockatoo	15	\$179.85	

## PRACTICAL APPLICATION 2

Find the total payable for each of the following items.

ITEM	QUANTITY	UNIT	PRICE PER UNIT	TOTAL PRICE
Blackwork	36	Each	\$19.99	
Kindred	113	Each	\$24.99	
Lemons in the Chicken Wire	15	Each	\$22.95	
A Most Peculiar Act	35	Each	\$24.95	
A Boy's Life	48	Each	\$16.99	

Calculate the mark-down price of the following goods.

ITEM	ORIGINAL PRICE	REDUCTION	MARK DOWN PRICE
Blackwork	\$19.99	\$16.50	
Kindred	\$24.99	\$17.85	
Lemons in the Chicken Wire	\$22.95	\$6.95	
A Most Peculiar Act	\$24.95	\$2.49	
A Boy's Life	\$16.99	\$2.50	

## PERCENTAGES

### PRACTICAL APPLICATION 1

Find the amount to depreciate each of the following items.

ITEM	VALUE	DEPRECIATION RATE	DEPRECIATION VALUE
Epson Printer	\$9,901.00	25%	
Sanyo TV	\$876.00	18%	
Sigma Wagon	\$5,200.00	30%	
Canon Copier	\$17,560.00	14.25%	
Toyota Hilux	\$22,540.00	15%	

### PRACTICAL APPLICATION 2

Find the amount of taxation to be paid by each of the following employees.

EMPLOYEE	WAGES	RATE OF TAX	AMOUNT OF TAX
H Wilson	\$1,026.58	25%	
M Howard	\$754.90	33.33%	
B Canton	\$432.87	48%	
I M Reader	\$265.00	22%	
P Bradley	\$1,327.57	45%	

## GST

### PRACTICAL APPLICATION 1

Find the GST on these figures, then show the total purchase price including GST.

PRODUCT	GROSS PRICE (no GST)	GST	TOTAL PRICE
Brother Moon	\$1022.40		
Yinti	\$354.30		
Simply Ing	\$409.00		
Kindred	\$113.28		
Brother Moon	\$380.05		

**PRACTICAL APPLICATION 2**

Find the GST on these figures which now include GST:

PRODUCT	GROSS PRICE (inc GST)	GST	PRICE ex-GST
Black Cockatoo	\$779.35		
Silly Birds	\$748.50		
Mad Magpie	\$2519.95		
Traditional Healers	\$599.40		
Silly Birds	\$2095.80		

**CONVERTING FRACTIONS**

Convert the following fractions to decimals correct to two places. PRACTICAL APPLICATION

**PRACTICAL APPLICATION 1**

65 $\frac{1}{4}$	_____
35 $\frac{4}{5}$	_____
25 $\frac{6}{12}$	_____
126 $\frac{5}{10}$	_____
354 $\frac{7}{8}$	_____

**PRACTICAL APPLICATION 2**

40 hrs & 40 mins	_____
35 hrs & 20 mins	_____
40 hrs & 17 mins	_____
30 hrs 45 mins	_____
31 hrs 24 mins	_____

**MEMORY FUNCTIONS****PRACTICAL APPLICATION 1**

Cross balance the stores and months for each of the following.

MONTHS	Culture & History	Junior Fiction	Adult Fiction	Memoire & Biography	TOTAL
October	2241	3,121	1,054	2,730	
November	1685	2,727	1,612	3,480	
December	1734	888	787	280	
January	3874	1,623	1968	1842	
February	1405	2,317	1,469	1,220	
TOTAL					

**PRACTICAL APPLICATION 2**

MONTHS	Poetry	Junior Non-Fiction	Adult Non-Fiction	Education	TOTAL
March	503	441	920	521	
April	692	832	582	603	
May	731	93	42	902	
June	721	872	492	391	
July	401	571	241	901	
TOTAL					



**CONSTANT FUNCTIONS**

**PRACTICAL APPLICATION 1**

Calculate the following payroll (constant multiplier = \$9.67)

NAME	HOURS WORKED	RATE OF PAY	TOTAL
C Law	40	\$9.67	
H Fobs	35	\$9.67	
M Barwin	38	\$9.67	
F Soot	41	\$9.67	
N Howe	39	\$9.67	

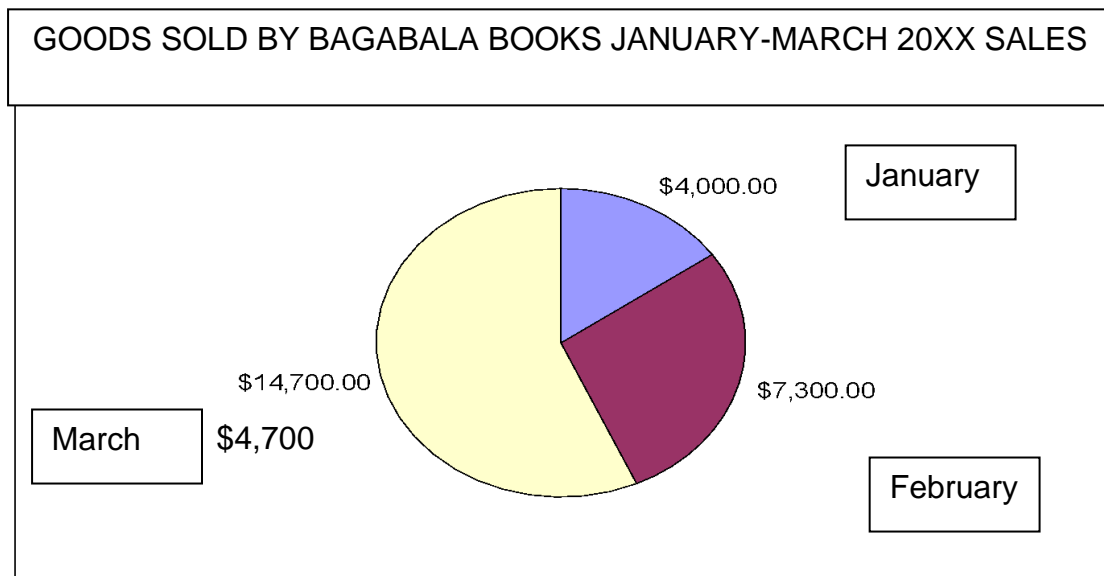
**PRACTICAL APPLICATION 2**

Calculate the hourly rate of each employee from their weekly wage (constant divisor = 40). Hourly rate should be correct to three decimal places.

NAME	HOURS WORKED	WEEKLY WAGES	HOURLY RATE
D Wyatt	40	\$740.00	
P Anderson	40	\$690.00	
S Right	40	\$775.00	
M Larcan	40	\$686.00	
J Cones	40	\$715.00	

**SYMBOLS AND PICTORIAL REPRESENTATIONS**

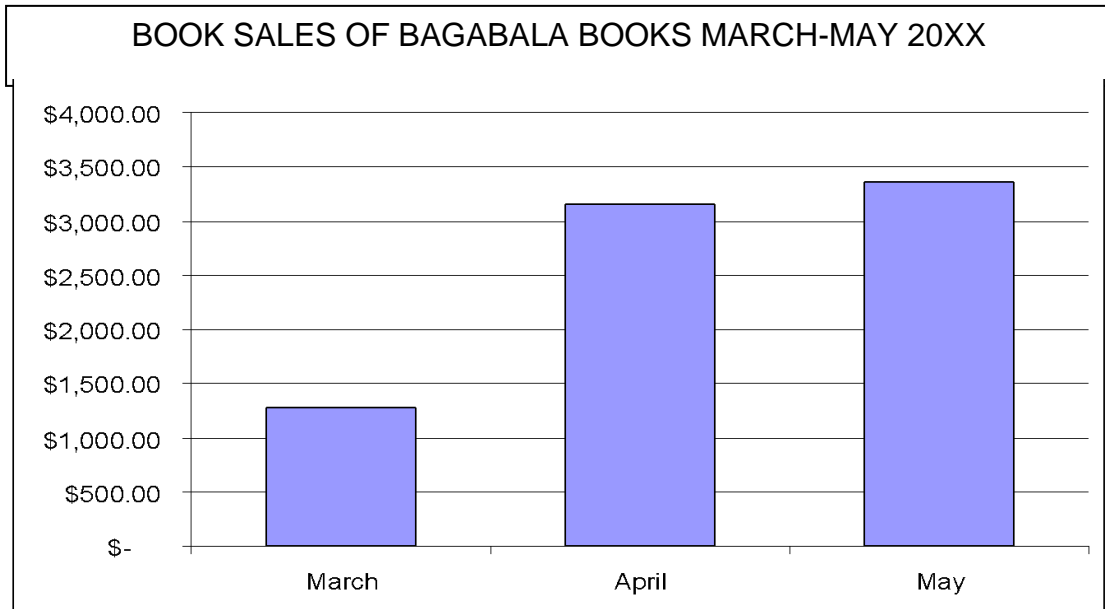
**PRACTICAL APPLICATION 1**



From the pie chart above, answer the following questions.

A If the total sales for the three months is \$16,000, what percentage of the total sales is March? \_\_\_\_\_

B The sales for February are 17.5% of the total sales? TRUE/FALSE



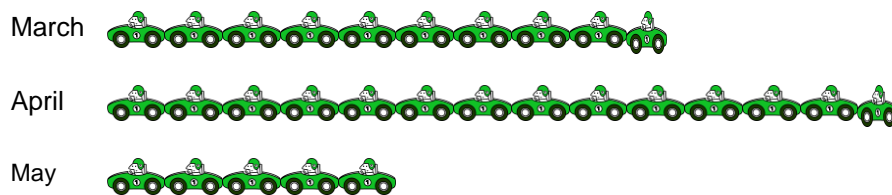
From the histogram above, answer the following questions:

A What is the value of books sold in April? \_\_\_\_\_

B What is the difference between book sales in April and May? \_\_\_\_\_

VEHICLE EXPENSES OF BAGABALA BOOKS

MARCH TO MAY 20XX



Legend: 1 = \$50

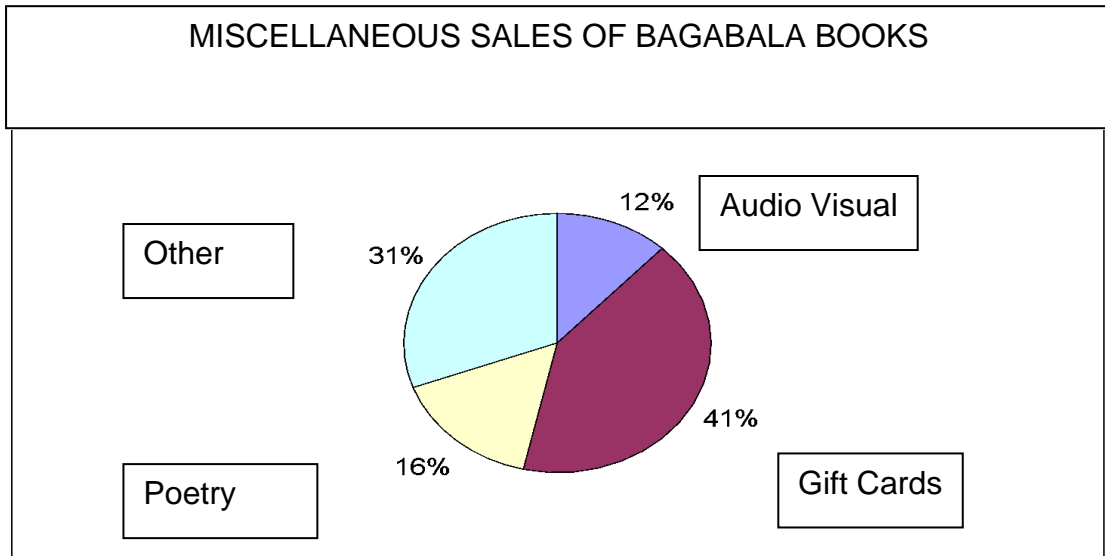
Figure 3 Pictogram 1

From the pictogram above, answer the following questions.

A How much were vehicle expenses in April? \_\_\_\_\_

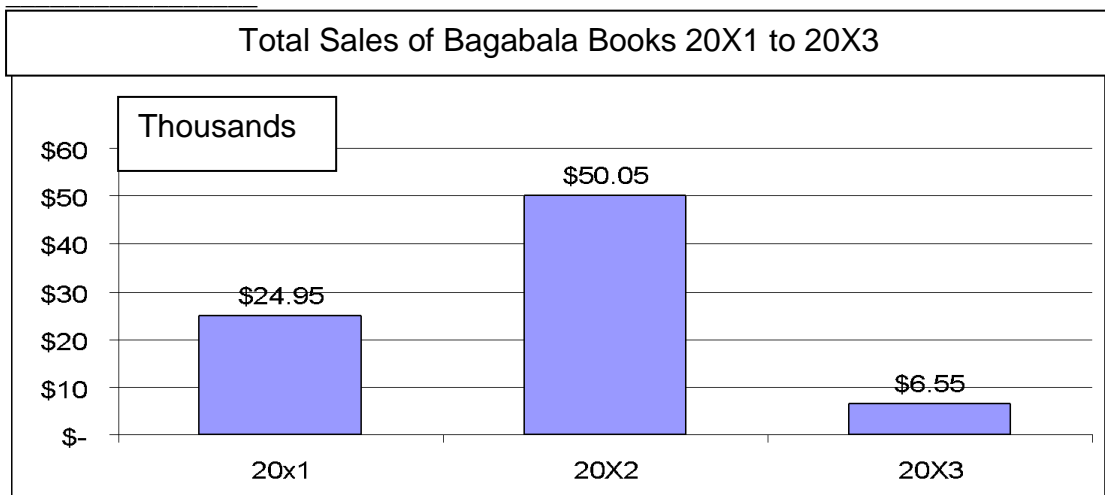
B How much were vehicle expenses in May? \_\_\_\_\_

**PRACTICAL APPLICATION 2**



From the pie chart above, answer the following questions.

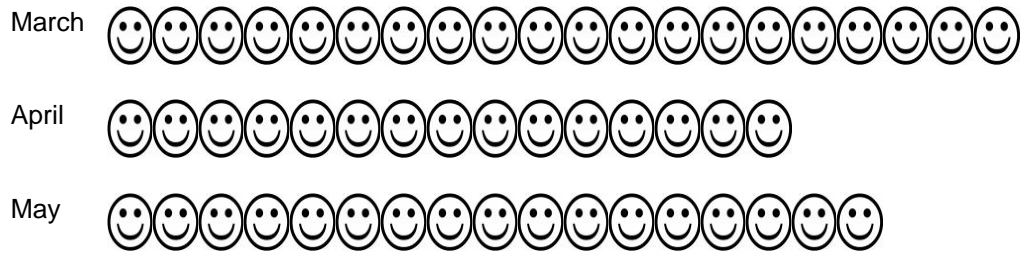
- A The total sales for the period is \$2,200. What was the value of the audio visual sales? \_\_\_\_\_
- B What was the value of poetry sales for the period? \_\_\_\_\_



From the above histogram, answer the following questions.

- A What was the increase in sales between 20X1 and 20X3? \_\_\_\_\_
- B What year had the highest sales? \_\_\_\_\_

**SALARIES EXPENSES OF BAGABALA BOOKS  
MARCH TO MAY 20XX**



Legend: 1 = \$100.

From the above pictogram, answer the following questions.

- A How much was paid in salaries during April? \_\_\_\_\_
- B What is the difference between cost of salaries in March and cost of salaries in May?  
\_\_\_\_\_

**LOANS AND INVESTMENT CALCULATIONS**

Use a spreadsheet product to determine the interest to be paid on the following transactions:

**PRACTICAL APPLICATION 1**

\$45500 borrowed at 3% simple interest over 3 years.

\$125000 borrowed at 7% compound interest over 7 years.

**PRACTICAL APPLICATION 2**

\$1500000 invested at 14% compound interest over 15 years.

\$11500 invested at 4% simple interest over 5 years.

**STORAGE AND ELECTRONIC FILING OF WORKSHEET CALCULATIONS**

**PRACTICAL APPLICATION 1**

Complete the folder label for the files for the following calculation sheets. Then show the order of the calculation sheets (by writing the number on the worksheet) as they would be held in the files (ie number one on top etc).

LABEL FOR LEAVER ARCH FILE

<b>LEAVE BALANCES OF STAFF (IN HOURS) QUARTER ONE 20XX/20X1</b>			
EMPLOYEE	OPENING BALANCE	QUARTERLY LEAVE ACCRUED	CURRENT LEAVE BALANCE
H Wilson	75.14	30	105.14
M Howard	90	23	113
B Canton	27	15	42
I M Reader	50	22	72
P Bradley	12	5	17

<b>LEAVE BALANCES OF STAFF (IN HOURS) QUARTER TWO 20XX/20X1</b>			
EMPLOYEE	OPENING BALANCE	QUARTERLY LEAVE ACCRUED	CURRENT LEAVE BALANCE
H Wilson	105.14	24	129.14
M Howard	113	12	125
B Canton	42	42	84
I M Reader	72	25	97
P Bradley	17	25	42

<b>LEAVE BALANCES OF STAFF (IN HOURS) QUARTER THREE 20XX/20X1</b>			
EMPLOYEE	OPENING BALANCE	QUARTERLY LEAVE ACCRUED	CURRENT BALANCE
H Wilson	129.14	0	129.14
M Howard	125	10	135
B Canton	84	14	98
I M Reader	97	30	127
P Bradley	42	10	52

Complete the folder label for the files for the following cash at bank reports. Then show the order of the calculation sheets (by writing the number on the worksheet) as they would be held in the files (ie number one on top etc).

LABEL FOR LEAVER ARCH FILE

<b>CASH AT BANK REPORT AS AT 30 MARCH 20X1</b>			
DETAILS	DEBIT	CREDIT	BALANCE
Balance brought forward	900.57		<b>10900.57</b>
EFT Ref 767726	895.00		10005.57
EFT Ref 767727	6,179.00		3826.57
Deposit #45		540.00	4423.57
EFT Ref 767728	54.00		4366.57
D D Bawden		540.75	4853.32
EFT Ref 767729	760.00		4093.32
EFT Ref 767730	1,090.00		3003.32
Deposit #46		213.00	3216.32
I EFT Ref 767731	514.00		2702.32
CLOSING BALANCE			<b>2702.32</b>

<b>CASH AT BANK REPORT AS AT 31 APRIL 20X1</b>			
DETAILS	DEBIT	CREDIT	BALANCE
Balance brought forward	2702.32		<b>32702.32</b>
EFT Ref 767732	89.50		
EFT Ref 767733	79.00		
Deposit #47		4004.00	
EFT Ref 767734	54.00		
D D Bawden		540.75	
EFT Ref 767735	76.00		
EFT Ref 767736	91.00		
Deposit #48		312.00	
I EFT Ref 767737	415.00		
CLOSING BALANCE			

**PRACTICAL APPLICATION 2**

On your computer, make a folder for the files for sales prices calculations for the first, second and third quarters of financial year 20XX to 20X1. Move the three files for these calculations into the folder in the correct order.

On your computer, make a folder for the files for calculating petty cash for the four fortnights from 4 November 20XX to 16 December 20XX. Move the four files for these calculations into the folder in the correct order.

**USING SIMPLE SPREADSHEETS TO PERFORM REPEATED CALCULATIONS****PRACTICAL APPLICATION 1**

Open the file July 20XX to June 20X1 Quarterly Leave Balances and update fourth quarter details using the following figures and save the file appropriately. The opening balance for the fourth quarter is the current balance for the third quarter.

<b>LEAVE BALANCES OF STAFF (IN HOURS) QUARTER THREE 20XX/20X1</b>			
EMPLOYEE	OPENING BALANCE	QUARTERLY LEAVE ACCRUED	CURRENT BALANCE
H Wilson	129.14	0	129.14
M Howard	125	10	135
B Canton	84	14	98
I M Reader	97	30	127
P Bradley	42	10	52

<b>LEAVE BALANCES OF STAFF (IN HOURS) QUARTER FOUR 20XX/20X1</b>			
EMPLOYEE	OPENING BALANCE	QUARTERLY LEAVE ACCRUED	CURRENT BALANCE
H Wilson		10	
M Howard		14	
B Canton		4	
I M Reader		22	
P Bradley		8	

**PRACTICAL APPLICATION 2**

Open the file Product Price List and calculate the GST and Total Price for the products.

PRODUCT	GROSS PRICE (no GST)	GST	TOTAL PRICE
Dark Emu	\$19.99		
Girls Can Fly	\$16.99		
Benevolence	\$19.99		
Little Bird's Day	\$2499		
Respect	\$24.95		

**MAPPING MATRIX**

UNIT OF COMPETENCY STANDARDS	REFERENCE
1.1 Obtain input data and verify as required for workplace calculations	All Practical Applications
1.2 Determine required outcomes of calculations and confirm from task specifications	Solutions provided for assessors
1.3 Acquire resources and equipment needed to perform calculations effectively	All Practical Applications
1.4 Use simple spreadsheets where necessary to perform repeated calculations	PP 14-15
2.1 Identify and obtain equipment required to perform calculations, including hand-held calculators	All Practical Applications; PP 5-9
2.2 Select method suitable for required calculations	All Practical Applications
2.3 Perform financial calculations to complete work requirements using techniques suited to selected method	All Practical Applications
3.1 Check results to confirm that calculations are accurate and meet required outcomes, and identify and correct routine computational errors	Solutions provided for assessors
3.2 Record calculation results according to organisational requirements	All Practical Applications Policy and Procedure Manual
3.3 Store or electronically file calculation worksheets for future use according to organisational policy and procedures	PP 12-13

SKILL	FOUNDATION SKILLS STANDARD	REFERENCE*
Reading	Interprets instructions and carefully analyses information for errors and discrepancies	All Practical Applications; Policy and Procedure Manual
Writing	Records information accurately using correct spelling, grammar and conventions	All practice activities
Numeracy	Performs mathematical calculations accurately, including: <ul style="list-style-type: none"> <li>● addition, subtraction, multiplication, division</li> <li>● percentages,</li> <li>● fractions,</li> <li>● decimals and</li> <li>● straight line graphs</li> </ul> to undertake financial computations	PP 3-4; 5-6 P 5; P 7 P 4; P 8 P 6; 8 PP 9 - 11
Navigate the world of work	Follows organisational protocols, policies and procedures relevant to own role	Policies and Procedures Manual All Practical Applications
Get the work done	Plans, organises and implements tasks according to organisational requirements  Uses the main features and functions of digital tools to complete work tasks	Policies and Procedures Manual All Practical Applications PP 5 – 11 PP 12 – 14



**ASSESSMENT REQUIREMENTS**

The **Performance Evidence** for this unit of competence to apply mathematical techniques and methods of calculations can be found in this learning resource as follows:

:

<b>PERFORMANCE</b>	<b>REFERENCE</b>
Calculation of goods and services tax (GST)	P 8
Calculation of simple interest	P 12
Calculation of compound interest	P 12
Calculation of basic loan calculations	P 12
Effectively use office equipment and software to enter data and complete calculations	PP 5-9; PP 12-14
Check for accuracy of computational results and correct errors where required	All Practical Applications; Solutions provided for assessors
Record calculation worksheets for future reference and use.	All Practical Applications; PP 12-13

The **Knowledge Evidence** for this unit of competence to effectively complete the tasks outlined in the elements and performance criteria, and to manage tasks and reasonably foresee contingencies in the context of the work role can be found in this learning resource as follows:

:

<b>KNOWLEDGE</b>	<b>REFERENCE</b>
Industry-standard techniques and methods to perform routine calculations	All Practical Applications; Policy and Procedure Manual
Typical computational errors and ways to check for them	All Practical Applications; Solutions provided for assessors
Key features of equipment and software required to conduct routine financial calculations	PP 5- 9; PP 12-14