RECEIVABLES

The amount of cash expected to be collected in the near future.		UCH LEAR nce sheet 0 June 2021			
	\$	\$	\$		\$
Assets				Liabilities	
Current assets:				Current liabilities:	
Cash		4 800		Accounts payable	48 70
Accounts receivable		2 600		Salary payable	90
Inventory		30 500		Interest payable	10
Supplies		600		Unearned service revenue	40
Prepaid rent		2 000		Total current liabilities	50 10
Total current assets			40 500	Non-current liabilities:	
Non-current assets:				Loans payable	20 00
Furniture	18 000			Total liabilities	70 10
Less: Accumulated depreciation—furniture	e 300	17 700			
Building	48 000				
Less: Accumulated depreciation—building	200	47 800		Owners' equity	
Total non-current assets			65 500	Sheena Bright, capital	35 90
Total assets			106 000	Total liabilities and owners' equity	106 00

SMART TOUCH LEARNING IS DOING WELL—50 WELL, in fact, that Sheena's alma mater, the University of Western Australia, has ordered 50 Microsoft Outlook training DVDs. This is great news, but there is a hitch. The university cannot pay Sheena immediately. It usually takes around 30 days to clear the paperwork and issue a cheque. Can Smart Touch wait 30 days to get the money? If it can't wait, the business may lose the sale.

Greg's Tunes is also expanding and accepting sales on credit as well as credit and debit cards from its customers. Greg's Tunes must also determine whether the change will help it to expand, even though its cash receipts will be different. Most businesses face this situation. There are both advantages and disadvantages to extending credit to customers.

In the case of both businesses, the pluses outweigh the minuses, so Smart Touch and Greg's Tunes will accept these terms of payment. The main advantage of selling on credit (selling on account) is expanding the business's customer base, which is a way to increase sales. The disadvantages are that the business has to wait to receive cash and some customers may never pay, which means that the business may never collect some of the receivables.

LEARNING OBJECTIVES

- LO 1 Define and explain common types of receivable, and journalise sales on credit, credit card sales and debit card sales
- LO 2 Use the allowance method to account for bad debts
- LO 3 Use the direct write-off method to account for bad debts
- **LO 4** Account for bills receivable
- LO 5 Report receivables on the balance sheet, and evaluate a business using the acidtest ratio, days' sales in receivables and the accounts receivable turnover ratio

This chapter focuses on accounting for receivables. We discuss the role of the credit department in deciding the customers to whom the business will sell on credit. We explain receivables, including how to account for them when they appear to be uncollectable, and internal control over receivables. We also cover bills receivable, a more formal written acknowledgement of a receivable, and introduce several measures that help a business to manage customer accounts, including *days' sales in receivables*.

9.1 RECEIVABLES: AN INTRODUCTION

A **receivable** arises when a business (or person) sells goods or services to another party on account (on credit). The receivable is the seller's claim against the buyer for the amount of the transaction. Receivables also occur when a business loans money to another party. A receivable is the right to receive cash in the future from a current transaction. It is something the business owns; therefore, it is an asset.

Each receivable transaction involves at least two parties:

- The **creditor** sells goods or a service and obtains a receivable (an asset). The creditor will collect cash from the customer.
- The **debtor** is the party to a receivable transaction who takes on an obligation/payable (a liability). The debtor will pay cash later.

This chapter focuses on accounting for receivables by the seller (the creditor).

Types of receivable

The three main types of receivable are:

- accounts receivable
- bills receivable
- other receivables.

Accounts receivable, sometimes called trade receivables or trade debtors, are amounts to be collected from customers from sales made on credit. They represent the right to receive cash in the future from customers for goods sold or for services performed. Accounts receivable are usually collected within a short period of time, such as 7, 14, 30 or 60 days, and are therefore reported as a current asset on the balance sheet.

Bills (and notes) receivable usually have longer terms than accounts receivable. A promissory note is a special type of bill receivable. It represents a written promise that a customer (or another individual or business) will pay a fixed amount of principal plus interest by a certain date in the future—called the maturity date. The maturity date is the date on which the debt must be completely paid off. A written document known as a promissory note serves as evidence of the debt and is signed by the debtor. Since the accounting treatment for bills and notes is essentially similar, we will concentrate on explaining how to account for bills receivable.

Bills receivable due within one year or less are current assets. Bills receivable due beyond one year are *non-current receivables*. Some bills receivable are collected in periodic instalments. The portion due within one year is a current asset, and the remaining amount a non-current asset. BHP may hold a \$6 000 bill receivable from you, but only the \$1 500 you owe this year is a current asset to BHP.

Other receivables make up a miscellaneous category that includes any other type of cash that is receivable in the future. Common examples include dividends receivable and interest receivable. These other receivables may be either current or non-current assets, depending on whether they will be received within one year or not. Non-current receivables are reported on the balance sheet with other non-current assets, as illustrated in Exhibit 9-1. The receivables are highlighted for emphasis.

Internal control over receivables

Businesses that sell goods or services on account/credit receive cash by mail (cheque payments) or as online payments (EFT), so internal control over collections is important. As discussed in Chapter 8, a critical element of internal control is the separation of cash-handling and cash-accounting duties. Consider the following case.

LO 1

Define and explain common types of receivable, and journalise sales on credit, credit card sales and debit card sales

		E BUSINES ce sheet t Date	SS	
	\$	\$		\$
Assets			Liabilities	
Current:			Current:	
Cash		X XXX	Accounts payable	XXX
Accounts receivable	X XXX		Bills payable, current	X XX
Less: Allowance for doubtful debts	(XXX)	X XXX	Accrued current liabilities	X XX
Bills receivable, current		X XXX	Total current liabilities	X XX
Inventories		X XXX		
Prepaid expenses		X XXX		
Total		X XXX	9	
Non-current:			Non-current:	
Investments and non-current receivables:			Bills payable, non-current	X XX
Investments in other businesses		x xxx	Total liabilities	X XX
Bills receivable, non-current		X XXX		
Other receivables		x xxx		
Total		X XXX	Owners' equity	
Property, plant and equipment		X XXX	Capital	X XX
Total assets		\$ X XXX	Total liabilities and owners' equity	\$ X XX

EXHIBIT 9-1 Balance sheet with receivables highlighted for emphasis

Butler Supply is a family-owned office supply business that takes pride in the loyalty of its workers. Most employees have been with the Butlers for at least five years. The business makes 90% of its sales on credit. The office staff consists of a bookkeeper and a supervisor. The bookkeeper maintains the accounts receivable subsidiary ledger. He also makes the daily bank deposit. The supervisor prepares monthly financial statements and any special reports the Butlers require.

Can you identify the internal control weakness here? The bookkeeper has access to the accounts receivable subsidiary ledger, and also has custody of the cash. The bookkeeper could take a customer cheque and write off the customer's account as uncollectable. (He would need to deposit the cheque in a bank account he controls.) Unless the supervisor or some other manager reviews the bookkeeper's work regularly, the theft may go undetected. In small businesses such as Butler Supply, such a review might not be performed routinely.

How can this control weakness be corrected? The supervisor could open incoming mail and make the daily bank deposit. *The bookkeeper should not be allowed to handle cash*. Only the remittance advices would be forwarded to the bookkeeper to indicate which customer accounts to credit. By removing cash-handling duties from the bookkeeper and keeping the accounts receivable subsidiary ledger away from the supervisor, the business would separate duties and strengthen internal control.

Using a bank direct deposit system achieves the same separation of duties. Customers can be instructed to send their payments directly to Butler Supply's bank, which will record the cash receipts and deposit the cash into the business's bank account.

Most large companies also have a credit department to evaluate customers' credit applications to determine whether or not they meet the company's credit approval standards. The extension of credit requires a balancing act. The business doesn't want to lose sales to good customers who need time to pay. At the same time, it also wants to avoid selling to customers who represent a poor credit risk.

For good internal control over cash collections from receivables, separation of duties must be maintained. Credit department staff should have no access to cash, and those who handle cash should not be in a position to grant credit to customers. If a credit department employee also handles cash, he or she can pocket money received from a customer. The employee can then label the customer's account as uncollectable, and the accounting department will write off the account receivable. The business would stop billing the customer and the credit department employee has covered up the theft.

Decision Guidelines 9.1 identifies the main issues in controlling, managing and accounting for receivables. These guidelines serve as a framework for the remainder of the chapter.

DECISION GUIDELINES 9.1

Controlling, managing and accounting for receivables

The main issues in *controlling* and *managing* the collection of receivables, along with a related plan of action, are as follows:

ISSUE	ACTION
Extend credit only to creditworthy customers, the ones most likely to pay.	Run a credit check on prospective customers.
Separate cash-handling, credit and accounting duties to keep employees from stealing the cash collected from customers.	Design and implement the internal control system to separate duties.
Maximise cash flow.	Pursue collections from customers.
The main issues in <i>accounting</i> for receivables, and the ISSUE	related plans of action, are as follows: ACTION
Measure and report receivables on the balance sheet at the amount expected to be collected. This is necessary to report assets at net realisable value.	Estimate the amount of bad debts. Report receivables at their net realisable value (accounts
assets at het realisable value.	receivable less allowance for doubtful debts).

Recording sales on credit

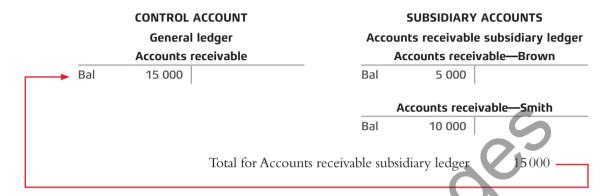
As discussed earlier, selling on credit (on account) creates an account receivable. Businesses must maintain a separate Accounts receivable account for each customer in order to account for payments received from the customer and any amounts still owed. The examples in this chapter assume that the business making the sale is also going to handle collecting its own sales. Another option the business has is to hire a third-party collection agency to collect receivables on the business's behalf for a fee.

For example, Greg's Tunes sells \$5 000 in services to customer Brown on account and also sells \$10 000 of inventory to customer Smith on account on 8 March 2021. The revenue is recorded (ignore cost of sales) as follows:

	2021			
(1a)	Mar 8	Accounts receivable—Brown (A+)	5 000	
		Service revenue (R+)		5 000
		Performed service on account.		

(1a)	Mar 8	Accounts receivable—Smith (A+)	10 000	
		Sales revenue (R+)		10 000
		Sold goods on account.		

These separate customer accounts receivable (e.g. Accounts receivable—Brown) are called subsidiary accounts. The sum of all balances in subsidiary Accounts receivable equals a control account balance. In this case, Accounts receivable serves as the control account. This is illustrated as follows:



The control account, Accounts receivable, shows a balance of \$15 000. The individual customer accounts in the subsidiary ledger (Accounts receivable—Brown \$5000 ± Accounts receivable—Smith \$10000) add up to a total of \$15000.

When the business collects cash from both customers on 29 March—\$4000 from Brown and \$8000 from Smith—Greg's Tunes makes the following entry and posts the entry to the T-accounts:

(2)	Mar 29	Cash (A+)	12 000	
		Accounts receivable—Smith (A–)		8 000
		Accounts receivable—Brown (A–)		4 000
		Collected cash on account.		

Recording credit card and debit card sales

In addition to selling on account, most companies also accept credit cards and debit cards. By accepting credit cards and debit cards, such as Visa, MasterCard and American Express, businesses are able to attract more customers.

Credit cards offer the customer the convenience of buying something without having to pay cash immediately. Debit cards reduce the customer's bank account immediately but allow the customer to pay electronically instead of with cash or by writing a cheque. Debit cards are fundamentally different from credit cards. Using a debit card to buy groceries is like paying with cash except that the customer doesn't have to carry the cash. At Woolworths (or Big W or Kmart), the buyer 'swipes' the card through the payment terminal, and the buyer's bank balance is automatically decreased. Woolworths' Cash account is increased immediately. So there is no credit card fee expense, but there will usually be transaction fees.

Businesses also benefit from accepting payment by credit and debit cards. They do not have to check each customer's credit rating or worry about keeping accounts receivable records or even collecting from the customer. The card issuer has the responsibility of collecting from the customer. Thus, instead of collecting cash from the customer, the seller will receive cash from the card issuer. There is, however, almost always a fee to the seller to cover the processing costs.

Businesses like Greg's Tunes hire a third-party processor to process credit and debit card transactions. Transactions are usually entered into an electronic terminal (card scanner) that the company either purchases or rents from the processor. The fees the card processor charges the

company for its processing services vary depending on the type of card and the specific agreement the company has with the card processor. The processor agreement specifies how fees are paid to the processor. The following are two common methods of handling the proceeds and processing fees:

- Net—the total sale less the processing fee assessed equals the net amount of cash deposited by the processor, usually within a few days of the sale date.
- Gross—the total sale is deposited daily within a few days of the actual sale date. The processing fees for all transactions processed for the month are deducted from the company's bank account by the processor, often on the last day of the month.

Proceeds from credit and debit card transactions are usually deposited within a few business days after the sale. Credit and debit card sales are therefore journalised similarly to cash sales. For example, Smart Touch sells inventory (ignore Cost of sales) to a customer for \$3 000 on 15 August. The customer pays with a third-party credit card. Assuming that the card processor assesses a 2% fee and deposits the net amount, Smart Touch would record the entry as follows:

15	Aug Ca	ash (A+)		2	940	
	C	ard fee expense (\$3 000 $ imes$ 0.02)	(E+)		60	
		Sales revenue (R+)				3 000
	R	ecorded credit card sales, net of f	ee			

Assuming that the processor uses the gross method, the same entry on the sale date would be as follows:

15 Aug	Cash (A+) 3 000	
	Sales revenue (R+)	3 000
	Recorded credit card sales.	

At the end of August, the processor would collect the fees assessed for the month. (*Note*: We assume only the one credit card sale for this month.)

31 Aug Card fee expense (\$3 000 × 0.02) (E+)	60	
Cash (A–)		60
Recorded fees charged by card processor.		

Factoring and pledging receivables

One of the many drawbacks of accepting sales on account is that the business must wait for the receipt of cash. Sometimes this period could be delayed by as much as 60 to 90 days. In addition, there is always the risk that the business will never collect on the receivable. In the previous section we looked at credit cards and debit cards as being an option to reduce this risk. Another option for a business is to either factor or pledge its receivables.

When a business factors its receivables, it sells its receivables to a finance company or bank (often called a *factor*). The business receives cash less an applicable fee from the factor for the receivables immediately. The factor, instead of the business, now collects the cash on the receivables. The business no longer has to deal with the collection of the receivable from the customer. The business receives cash associated with the receivable from the factor instead of the customer.

Pledging of receivables is another option for businesses that need cash immediately. In a pledging situation, a business uses its receivables as security for a loan. The business borrows money from a bank and offers its receivables as collateral. The business is still responsible for collecting on the receivables, but it uses this money to pay off the loan along with interest. In pledging, if the loan is not paid then the bank can collect on the receivables.

In both situations, the business has managed to receive cash immediately for the receivables instead of having to wait for collection.

TRY IT! 9.1

Phoenix Restaurants accepts credit and debit cards as forms of payment. Assume that Phoenix had \$12,000 of credit and debit card sales on 30 June 2020.

- **1** Suppose that Phoenix's processor charges a 2% fee and deposits sales net of the fee. Journalise the sale transaction for the restaurant.
- **2** Suppose that Phoenix's processor charges a 2% fee and deposits sales using the gross method. Journalise the sale transaction for the restaurant.

Credit balances in accounts receivable

Occasionally, customers overpay their accounts or return goods for which they have already paid. The result is a credit balance in the customer's Account receivable. For example, suppose that Campbell Enterprises' subsidiary ledger contains 213 accounts, with balances as shown:

210 accounts with <i>debit</i> balances totalling	\$185 000
Less: 3 accounts with <i>credit</i> balances totalling	(2 800)
Net total of all balances	\$182 200

Campbell Enterprises should *not* report the asset Accounts receivable at the net amount of \$182 200. Why not? Because the credit balance—the \$2800—is a liability. Like any other liability, customer credit balances are debts. A balance sheet that doesn't indicate this liability would be misleading. Therefore, Campbell Enterprises would report the following on its balance sheet:

Assets		Liabilities	
Current:		Current:	
Accounts receivable	\$185 000	Credit balances in customer accounts receivable	\$2 800

9.2 ACCOUNTING FOR BAD DEBTS (UNCOLLECTABLE ACCOUNTS)

Selling on credit brings both a benefit and a cost:

- The benefit to a business is the potential increased revenues and profits by making sales to a wider range of customers.
- The cost, however, is that some customers do not pay, creating uncollectable receivables. Customers' accounts receivable that are uncollectable must be written off or removed from the

books because the business does not expect to receive cash in the future. Instead, the business must record an expense associated with the cost of the uncollectable account. This expense is called **bad debts expense**. Bad debts expense is sometimes called **doubtful debts expense** or **uncollectable accounts expense**. Selling on credit can also give rise to collection costs and the opportunity cost of not having the cash immediately.

For a business that sells on credit, bad debts expense is as much a part of doing business as salary expense and electricity or telephone expense. Bad debts expense—sometimes classified as a selling and general expense—must be measured, recorded and reported.

There are two methods of accounting for uncollectable receivables:

- the allowance method, or
- the direct write-off method (in certain limited cases).

We begin with the allowance method because it is the method consistent with general principles of impairment of receivables as per Accounting Standards AASB 9 and NZIFRS 9, Financial Instruments.

9.3 THE ALLOWANCE METHOD

LO 2

Use the allowance method to account for bad debts

Most businesses use the allowance method to measure bad debts. The **allowance method** allows businesses to recognise impairment of receivables after initial recognition (i.e. the sales event). The offset to the expense is a contra asset account called **Allowance for doubtful debts** (or *Allowance for bad debts*). The Allowance account reduces Accounts receivable and shows the amount that the business expects *not* to collect given objective evidence of impairment. The business doesn't wait to see which customers won't pay. Instead, it records a bad debt expense based on observable data indicating impairment (e.g. numerous calls to collect that have been ignored over time) and uses the Allowance for doubtful debts account to house the pool of 'unknown' bad debtors.

Balance sheet (partial):	
Accounts receivable	\$2 455
Less: Allowance for doubtful debts	(217)
Accounts receivable, net	\$2 238

Customers owe this business \$2455, of which it expects to collect \$2238. The business estimates that it won't collect \$217 of its accounts receivable. Many businesses disclose information about bad debts in this manner.

Another way to report these receivables, used by some businesses, is as follows:

Accounts receivable, net of allowance of \$217	\$2 238

The income statement reports bad debts expense among the operating expenses or selling and general expenses, as follows (using assumed figures):

Income statement (partial):	
Expenses:	
Bad debts expense	\$4 000

Estimating bad debts

Businesses use their past experience regarding bad debts as well as considering observable data about economic conditions, and other indicators that defaults are probable. There are two basic ways to estimate bad debts under the allowance method:

- percentage of sales method, and
- ageing of accounts receivable method.

Both approaches require a journal entry. The discussion of both approaches in the remainder of the chapter assumes the existence of new observable data that signal impairment.

Percentage of sales method

The **percentage of sales method** calculates bad debt expense as a percentage of net credit sales. This method is also called the *income statement approach* because it focuses on the amount of expense

to be reported on the income statement. Bad debt expense is recorded as an adjusting entry at the end of the period.

Let's look at Greg's Tunes' receivables for March. The accounts have the following balances:

Accounts receivable	Allowance for doubtful debts
3 000	0

Interpretation: Accounts receivable reports the amount that customers owe you. If you were to collect from all customers, you would receive \$3 000. Allowance for doubtful debts should report the amount of the receivables that you *never* expect to collect. At this point, Greg's Tunes thinks that all receivables are collectable (\$0 balance in the Allowance account).

How the percentage of sales method works Greg's expects bad debts expense to be 2% of net credit sales, which totalled \$16500 for February. The journal entry records the following at 31 March 2021:

	2021		
(1b)	Mar 31	Bad debts expense (\$16500 × 0.02) (E+)	330
		Allowance for doubtful debts (CA+)	330
		Allowing 2% bad debts expense for the period.	

If GST was included in the original transactions creating the debts of \$330 that are now estimated to be bad, then that GST *should* be reversed in the books. For example, if there was \$30 of such GST (i.e. GST at 10%) in the illustration above, one way of accounting for the GST adjustment would be as follows:

2021			
Mar 31	Bad debts expense (E+)	300	
	GST clearing (A+/L–)	30	
	Allowance for doubtful debts (CA+)		330
	Allowing 2% doubtful debts expense for the period.		

There are several possible methods of accounting for the GST implications arising from bad debt adjustments. So as not to complicate the principles of accounting for bad debts unnecessarily, apart from the occasional reference we will ignore the additional GST bookkeeping adjustments arising from debts becoming uncollectable. However, you should be aware that in practice, the amount debited to bad debts expense in the income statement should be reduced by the amount of any GST recoverable from the government (i.e. GST won't be paid on sales considered irrecoverable).

The accounting equation shows that the transaction to record the expense decreases the business's assets by the amount of the expense:

Assets	=	Liabilities	+	Owners' equity	-	Expenses
330	=	0			-	330

After posting, the accounts are ready for the balance sheet.

Accounts receivable	Allowance for doubtful debts
3 000	0
	Mar 31 330
	End Bal 330

Now the allowance for doubtful debts is realistic. *Net realisable value* is the net value that the business expects to collect from its receivables (Accounts receivable – Allowance for doubtful debts). The balance sheet will report accounts receivable at the net amount of \$2670 on 31 March 2021. The income statement will report bad debt expense for March of \$330.

Ageing of accounts receivable method

The other approach for estimating bad debts is the **ageing of accounts receivable method**. This method is also called the *balance sheet approach* because it focuses on the actual age of the accounts receivable and determines a target allowance balance from that age. Assume that it is now 30 June 2021, and Greg's Tunes has recorded the remainder of the year's activity in the accounts such that the accounts now have the following balances *before the year-end adjustments*:

Accounts	receivable	Allowance for doubtful deb			5
2 800					150

In the ageing approach, you group individual accounts (Williams, Davis, etc.) according to how long they have been outstanding. The computer can sort customer accounts by age. By this stage, the business will also have a good idea which accounts are likely to default given the time that these amounts have been outstanding and collection efforts futile. Exhibit 9-2 shows how Greg's Tunes groups its accounts receivable. This is called an ageing schedule.

Interpretation: customers owe you \$2800 A, but you expect not to collect \$400 B of this amount. Notice that the percentage of bad debts increases as a customer account gets older.

How the ageing method works The ageing method tells you what the credit balance of the allowance account needs to be—the target allowance balance; in this case, \$400. So, place the target balance into the Allowance T-account as follows:

Accounts receivable	Allowance for doubtful debts
2 800	150
	\$400 Target balance

Then consider the account information:

\$150 Credit balance plus/minus adjustment = \$400 Credit target balance

EXHIBIT 9-2 Ageing the accounts receivable of Greg's Tunes

	AGE OF				
CUSTOMER NAME	1–30 DAYS	31-60 DAYS	61-90 DAYS	OVER 90 DAYS	TOTAL BALANCE
Williams	\$ 500				\$ 500
Davis	1 300				1 300
Andrews		80			80
Jones		120			120
Other accounts	60		340	\$400	800
Totals	\$1 860	\$200	\$340	\$400	\$2 800
Estimated percentage of bad debts	x 1%	x 2%	x 5%	x 90%	
Allowance for doubtful debts					
Debts balance	+ \$ 19*	+\$ 4	+ \$ 17	+ \$360	= \$ 400

The Allowance account needs \$250 more in Credit. To adjust the allowance, make the following entry at year-end:

	2021			
(3)	Jun 30	Bad debts expense (E+)	250	
		Allowance for doubtful debts (\$400 – \$150) (CA+)		250
		Adjusted the allowance account up to \$400.		

Again, the recording of the expense decreases the business's assets by the amount of the expenses. The accounting equation for the expense transaction is:

Assets	=	Liabilities	+	Owners' equity	-	Expenses
250	=	0			-	250

After posting, the accounts are up to date and ready for the balance sheet.

Accounts receiv	able	Allowance for	doubtful debts	
2 800				150
			Adj	250
	Accounts receiva	ble, net \$2 400	End Bal	400

Accounts receivable are reported at net realisable value of \$2,400 because that is the amount Greg's Tunes expects to collect in cash in the future. As with the percentage of sales method, the income statement reports the bad debts expense.

Using the percentage of sales and the ageing methods together

In practice, businesses could use the percentage of sales and the ageing of accounts methods together:

- Businesses use the percentage of sales method in the interim as indications of impairment appear over the short term.
- At the end of the year, these businesses use the ageing method utilising observable data about collectability of those accounts to ensure that Accounts receivable is reported at *net realisable value*—that is, the expected amount to be collected. The ageing method focuses on the amount of the receivables—the *asset*—that is uncollectable.
- Using the two methods together provides good measures of both the expense and the asset. Exhibit 9–3 (overleaf) summarises and compares the two methods.

Identifying and writing off bad debts

By early July 2021, Greg's Tunes collects most of its accounts receivable and records the cash receipts as follows (amount assumed):

	2021			
(2)	Jul 15	Cash (A+)	2 000	
		Accounts receivable (various customers) (A–)		2 000
		Collected on account.		

Cash increases, and Accounts receivable decreases, by the same amount. Total assets are unchanged.

Assets	=	Liabilities	+	Owners' equity
+2 000				
-2 000	=	0	+	0

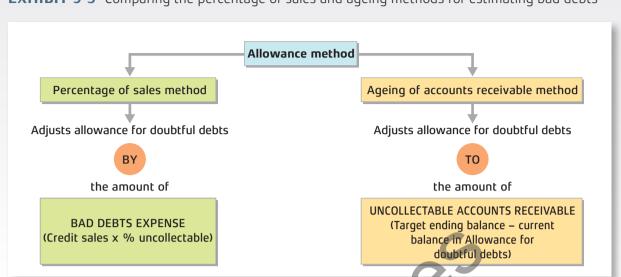


EXHIBIT 9-3 Comparing the percentage of sales and ageing methods for estimating bad debts

Suppose that after repeated attempts, Greg's accountant finally decides on 15 July 2021 that the business cannot collect a total of \$200 from customers Andrews and Jones (from Exhibit 9-2). At the time these bad debts are identified, the entry is made to write off the receivables from these customers, as follows:

	2021			
(4)	Jul 15	Allowance for doubtful debts (CA–)	200	
		Accounts receivable—Andrews (A–)		80
		Accounts receivable—Jones (A–)		120
		Wrote off doubtful debts.		

The accounting equation shows that the write-off of bad debts has no effect on total assets, liabilities or equity.

Assets	=	Liabilities	+	Owners' equity
+200				
-200	=	0	+	0

As the write-off entry affects no expense account, it *doesn't affect net profit*. The write-off has no effect on net receivables either, as shown in Exhibit 9-4.

EXHIBIT 9-4 Net receivables before and after the write-off of bad debts are the same

	BEFORE WRITE-OF	F	AFTER WRITE-OF
Accounts receivable (\$2 800 – 2 000)	\$800	(\$800 – \$200)	\$600
Less: Allowance for doubtful debts	(400)	(\$400 – \$200)	(200)
Accounts receivable, net	\$400	same —	→ \$400

Recovery of accounts previously written off—allowance method

When an account receivable is written off as uncollectable, the receivable doesn't die—the customer still owes the money. However, the business stops pursuing collection and writes off the account as uncollectable. Some businesses turn delinquent receivables over to a law firm or other collection agency to recover some of the cash for the business.

Recall that Greg's Tunes wrote off the \$80 receivable from customer Andrews on 15 July 2021. It is now 4 September 2021, and Greg's unexpectedly receives \$80 cash from Andrews. To account for this recovery, the business must reverse the effect of the earlier write-off to the Allowance account (or credit the Bad debts expense account if this happened in the same reporting period) and record the cash collection. Reinstating to Accounts receivable will also provide a full history for the customer. The entries are as follows:

	2021		
(5)	Sep 4	Accounts receivable—Andrews (A+)	80
		Allowance for doubtful debts (CA+)	80
		Cash (A+)	80
		Accounts receivable—Andrews (A–)	80

Exhibit 9-5 (overleaf) summarises the entries we have covered using the allowance method of accounting for bad debts and the entries we have made for Greg's Tunes.

Note: Any GST adjustments accompanying the original write-off would also have to be reversed.

TRY IT! 9.2

Johnson Ltd uses the allowance method to account for uncollectable receivables. On 2 September, Johnson wrote off a \$14,000 account receivable from customer J. Mraz. On 12 December, Johnson unexpectedly received full payment from Mraz on the previously written off account. Johnson records an adjusting entry for bad debts expense of \$800 on 31 December.

- 1 Journalise Johnson's write-off of the uncollectable receivable.
- 2 Journalise Johnson's collection of the previously written-off receivable.
- **3** Journalise Johnson's adjustment for bad debts expense.

9.4 THE DIRECT WRITE-OFF METHOD

There is an alternative way to account for bad debts. This method doesn't use an allowance account. Under the **direct write-off method** of accounting for bad debts, the business waits until it decides that a customer's account receivable is uncollectable. The accountant then debits Bad debts expense and credits the customer's Account receivable to write off the account.

LO3

Use the direct write-off method to account for bad debts

EXHIBIT 9-5 Greg's Tunes—allowance method

PANEL A—Transactions

- (1a) Make sales on account.
- (1b) Establish a pool for future potential uncollectability (2%).
- (2) Collect cash on account.
- (3) Adjust allowance account to reflect adjustments to the estimate.
- (4) Identify a bad debt.
- (5) Recover previously written-off account.

PANEL B—Journal entries

(1a)	8 Mar 2021	Accounts receivable—Brown (A+)	5 000	
(10)	0 IVId1 202 I		3 000	F 000
		Service revenue (R+)		5 000
		Accounts receivable—Smith (A+)	10 000	
		Sales revenue (R+)		10 000
(1b)	31 Mar 2021	Bad debts expense (E+)	330	
		Allowance for doubtful debts (CA+)		330
		(\$16 500 credit sales x 0.02)		
(2)	29 Mar 2021	Cash (A+)	12 000	
		Accounts receivable—Smith (A–)		8 000
		Accounts receivable—Brown (A–)		4 000
(3)	30 Jun 2021	Bad debts expense (E+)	250	
		Allowance for doubtful debts (CA+)		250
(4)	15 Jul 2021	Allowance for doubtful debts (CA-)	200	
		Accounts receivable—Andrews (A–)		80
		Accounts receivable—Jones (A–)		120
(5)	4 Sep 2021	Accounts receivable—Andrews (A+)	80	
		Allowance for doubtful debts (CA+)		80
		Cash (A+)	80	
		Accounts receivable—Andrews (A–)		80

For example, let's reconsider Greg's Tunes' identified bad debts from 15 July 2021. The entry under the direct write-off method would be as follows:

	2021			
(4)	Jul 15	Bad debts expense (E+)	200	
		Accounts receivable—Andrews (A–)		80
		Accounts receivable—Jones (A–)		120
		Wrote off bad debts.		

This method is defective for two reasons:

- 1 It doesn't set up an allowance for bad debts. As a result, it always reports the receivables at their full amount, which is more than the business expects to collect. Assets are overstated on the balance sheet.
- 2 It doesn't recognise the bad debts expense in the same time period in which the sale was made. In this example, Greg's Tunes made the sales to Andrews and Jones and journalised Sales revenue in early 2021 (or the 2020/21 financial year). However, Greg's wrote off the bad debts by recording the Bad debt expense on 15 July 2021, the next financial year. As a result, Greg's Tunes *overstates* net profit in 2021 and *understates* net profit in 2022.

In accordance with the accrual method of accounting, expenses incurred must be identified with revenue earned during the period. Thus, the direct write-off method is acceptable only when the amount of bad debts is so low that there is no material difference between bad debt amounts determined by the allowance method and by the direct write-off method. The allowance method requires more-subjective estimation but provides useful information for decision making if carried out competently.

Recovery of accounts previously written off—direct write-off method

As with the allowance method, under the direct write-off method an account receivable that is written off as uncollectable doesn't die—the customer still owes the money. However, the accounting for the two methods differs slightly. Recall that Greg's Tunes wrote off the \$80 receivable from customer Andrews on 15 July 2021. It's now 4 September 2021, and the business unexpectedly receives \$80 from Andrews. To account for this recovery, the business must reverse the effect of the earlier write-off to the Bad debts expense account and record the cash collection. The entries are as follows:

(5)	Sep 4	Accounts receivable—Andrews (A+)	80	
		Bad debts expense (E-)		80
		Cash (A+)	80	
		Accounts receivable—Andrews (A–)		80

Exhibit 9-6 (overleaf) summarises the entries that would be made using the direct write-off method of accounting for bad debts and the entries we have made for Greg's Tunes.

Compare Exhibit 9-5, using the allowance method, and Exhibit 9-6, using the direct write-off method. The entries that differ between the two methods are highlighted in blue.

Note: Any GST adjustments accompanying the original write-off would also have to be reversed.

Summary Problem 9.1 on the following pages works through the accounting treatment for receivables and doubtful debts.

EXHIBIT 9-6 Greg's Tunes—direct write-off method

PANEL A—Transactions

- (1a) Make sales on account.
- (1b) N/A
- (2) Collect cash on account.
- (3) N/A
- (4) Identify a bad debt.
- (5) Recover previously written-off account.

PANEL B—Journal entries

(1a)	8 Mar 2021	Accounts receivable—Brown (A+)	5 000	
		Service revenue (R+)		5 000
		Accounts receivable—Smith (A+)	10 000	
		Sales revenue (R+)		10 000
(1b)	31 Mar 2021	no entry		
(2)	29 Mar 2021	Cash (A+)	12 000	
		Accounts receivable—Smith (A–)		8 000
		Accounts receivable—Brown (A–)		4 000
(3)	30 Jun 2021	no entry		
		\ (Z ₁ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
(4)	15 Jul 2021	Bad debts expense (E+)	200	
		Accounts receivable—Andrews (A–)		80
		Accounts receivable—Jones (A–)		120
(5)	4 Sep 2021	Accounts receivable—Andrews (A+)	80	
		Bad debts expense (E–)		80
		Cash (A+)	80	
		Accounts receivable—Andrews (A–)		80

SUMMARY PROBLEM 9.1

Monarch Map's balance sheet at 30 June 2021 reported the following:

Accounts receivable	\$60 000
Less: Allowance for doubtful debts	2 000

REQUIREMENTS

- **1** How much of the receivable did Monarch expect to collect? Stated differently, what was the expected net realisable value of these receivables?
- **2** Journalise, without explanations, the following entries for Monarch during the 2022 financial year:
 - **a** Total credit sales were \$80 000; 3% of sales were estimated to be uncollectable. Monarch received cash payments on account during the financial year of \$74 300.

- **b** Write-offs of accounts receivable totalled \$2 700. These were previously included in Allowance for doubtful debts.
- **c** 30 June 2022 ageing of receivables indicates that \$2 200 of the total receivables is bad.
- **3** Post the transactions to the Accounts receivable and the Allowance for doubtful debts T-accounts. Calculate and report Monarch's receivables and related allowance on the 30 June 2022 balance sheet. What is net realisable value of receivables at 30 June 2022? How much is the Bad debts expense for the 2022 financial year?
- **4** What if the beginning balance in Allowance for doubtful debts had instead been \$200 credit? Journalise the entries in Requirement 2 in this case. What would be the ending balance in the Allowance for doubtful debts after posting the entries? What would be the balance in Accounts receivable?

SOLUTION

Requirement 1

Net realisable value of receivables (\$60 000 – \$2 000) \$58 000

Requirement 2

(a)	Accounts receivable (A+)	80 000	
	Sales revenue (R+)		80 000
	Bad debts expense (80 000 × 0.03) (E+)	2 400	
	Allowance for doubtful debts (CA+)		2 400
	Cash (A+)	74 300	
	Accounts receivable (A–)		74 300
(b)	Allowance for doubtful debts (CA-)	2 700	
	Accounts receivable (A–)		2 700
(c)	Bad debts expense (\$2 200 – \$1 700)* (E+)	500	
	Allowance for doubtful debts (CA+)		500

^{*} Calculation for Allowance for doubtful debts is \$2 000 (at 30 June 2021) + \$2 400 (estimated for 2022) - \$2 700 (written off) = \$1 700. \$500 is needed to bring the allowance up to the bad debts expense at 30 June 2022 of \$2 200.

Requirement 3

Accounts receivable				Allowance for doubtful debts				
1 Jul 2021 Bal	60 000					1 Jul 2021 Bal	2 000	
(a)	80 000	74 300	(a)	2022 Write-offs Adj (b)	2 700	2022 Expense Adj (a)	2 400	
		2 700	(b)			Bal before Adj	1 700	
30 Jun 2022 Ba	l 63 000					30 Jun 2022 Adj (c)	500	
						30 Jun 2022 Bal	2 200	

Accounts receivable	\$63 000
Less: Allowance for doubtful debts	2 200
Accounts receivable, net	\$60 800
Bad debts expense for 2022 (\$2400 + \$500)	\$ 2 900

Requirement 4

(a)	Accounts receivable (A+)	80 000	
	Sales revenue (R+)		80 000
	Cash (A+)	74 300	
	Accounts receivable (A–)		74 300
	Bad debts expense (80 000 x 0.03) (E+)	2 400	
	Allowance for doubtful debts (CA+)		2 400
(b)	Allowance for doubtful debts (CA–)	2 700	
	Accounts receivable (A–)		2 700
(c)	Bad debts expense (\$100 + \$2 000) (E+)	2 300	
	Allowance for doubtful debts (CA+)		2 300

Accounts receivable				Allowance for doubtful debts				
30 Jun 2021 Bal	60 000					30 Jun 2021 Bal	200	
(a)	80 000	74 300	(a)	2022 Write-offs Adj (b)	2 700	2022 Expense Adj (a)	2 400	
		2 700	(b)	Bal before Adj	100			
30 Jun 2022 Bal	63 000				(30 Jun 2022 Adj (c)	2 300	
					0	30 Jun 2022 Bal	2 200	

Accounts receivable	\$63 000
Less: Allowance for doubtful debts	2 200
Accounts receivable, net	\$60 800
Bad debts expense for 2022 (\$2 400 + \$2 300)	\$ 4 700

9.5 BILLS RECEIVABLE

LO4

Account for bills receivable

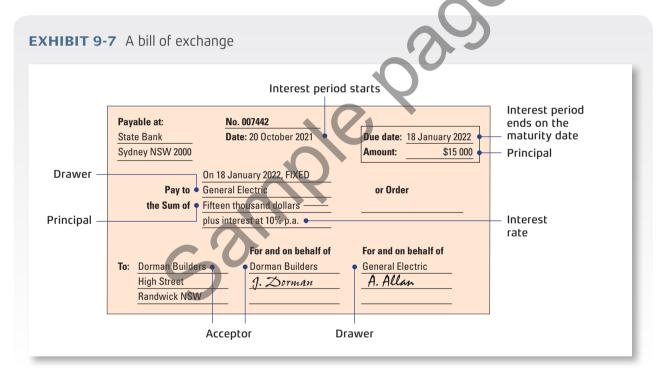
As we pointed out earlier in this chapter, bills receivable (also known as notes receivable) are more-formal arrangements than accounts receivable. Often the debtor signs a promissory note or bill of exchange, which serves as evidence of the debt. Bills of exchange are commonly used where foreign trade is concerned, with businesses selling goods or services in exchange for bills receivable. This arrangement may also occur when the payment term extends beyond the customary accounts receivable period, which generally ranges from 30 to 60 days. This is especially likely with overseas transactions because of the long transport periods involved with the movement of goods by sea. Also, the existence of a formal legal document such as a bill of exchange gives greater security to a business dealing on credit with a business in another country.

Let's define the special terms used to discuss bills receivable:

- **Promissory note**. This is defined as 'an unconditional promise in writing, signed by the maker, engaging to pay, on demand or at a fixed or determinable future time, a sum certain in money, to or to the order of a specified person, or to bearer'.
- **Bill of exchange**. A bill of exchange is 'an unconditional order in writing, addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand, or at a fixed or determinable future time, a sum certain in money to or to the order of a specified person or bearer'.

In essence, both a promissory note and a bill of exchange specify that there is an *obligation* to pay a certain amount on demand or at some future date.

- **Drawer (maker) of a bill**. The person or business that draws up (creates) the bill requiring payment to them of the amount specified in the bill; the drawer is the creditor and **payee of a bill**.
- Acceptor of a bill. The person or business required to make the specified payment, and who accepts the bill by signing it. Also called the drawee or addressee of the bill. The acceptor is the debtor.
- **Principal amount, or principal**. The amount owing to the drawer (creditor) and due to be paid by the acceptor (debtor).
- **Interest**. The revenue due to the payee for lending out the principal and the expense for the debtor for borrowing the principal.
- **Interest period**. The period of time during which interest is to be calculated. It extends from the original date of the bill to the maturity date. Also called the period or term of the bill.
- **Interest rate**. The percentage rate that is multiplied by the principal amount to calculate the amount of interest on the bill.
- Maturity date. The date on which final payment of the bill is due. Also called the due date.
- Maturity value. The sum of principal and interest due at the maturity date of a bill. Exhibit 9-7 illustrates a bill of exchange. Study it carefully. On 20 October 2021, General Electric sold household appliances for \$15 000 to Dorman Builders. Dorman signed a 90-day bill at 10% annual interest.



Identifying a bill's maturity date

Some bills specify the maturity date, as shown in Exhibit 9-7. Other bills state the period of the bill in days or months. When the period is given in months, the bill's maturity date falls on the same day of the month as the date the bill was issued. For example, a six-month bill dated 16 February matures on 16 August.

When the period is given in days, the maturity date is determined by counting the days from the date of issue. A 120-day bill dated 14 September 2022 matures on 12 January 2023, as shown here:

Month	Number of days	Cumulative total
Sep 2022	30 – 14 = 16	16
Oct 2022	31	47
Nov 2022	30	77
Dec 2022	31	108
Jan 2023	12	120

In counting the days remaining for a bill, remember to

- count the maturity date, and
- omit the date the bill was issued.

Calculating interest on a bill

The formula for calculating interest is:

Principal x Interest rate	x	Time	=	Amount of interest
---------------------------	---	------	---	--------------------

In the formula, time (period) represents the portion of a year that interest has accrued on the bill. It may be expressed as a fraction of a year in months (x/12) or a fraction of a year in days (x/365). If the principal of a bill is \$1 000 and the interest rate is 9%, the interest revenue for one year on a bill receivable is:

Principal	X	Interest rate	x	Time	3	Amount of interest
\$1 000	Х	0.09	х	1 (уг)		\$90

The maturity value of the bill is \$1090 (\$1000 principal + \$90 interest). The time element is one (1) because interest is calculated over a one-year period.

When the interest period of a bill is stated in months, we calculate the interest based on a 12-month year. Interest on a \$2000 bill at 15% for three months is calculated as:

Principal	x	Interest rate	x	Time	=	Amount of interest
\$2 000	Х	0.15	Х	3/12	=	\$75

When the interest period is stated in days, we calculate interest based on a 365-day year. The interest on a \$5000 bill at 12% for 60 days is calculated as:

Principal	x	Interest rate	x	Time	=	Amount of interest
\$5 000	Х	0.12	×	60/365	=	\$99

Recording bills receivable

In the bill of exchange illustrated in Exhibit 9-7, General Electric's entries to record the sale and collection from Dorman are:

2021			
Oct 20	Bill receivable—Dorman Builders (A+)	15 000	
	Sales revenue (R+)		15 000
	To record sale.		
2022			
Jan 18	Cash (A+)	15 370	
	Bill receivable—Dorman Builders (A–)		15 000
	Interest revenue (\$15 000 x 0.10 x 90/365) (R+)		370
	To record collection at maturity.		

A business may, by agreement, draw a bill receivable on a trade customer who fails to pay an account receivable within the customary 30 to 60 days. The customer becomes the acceptor of the bill—and returns it to the creditor, who becomes the payee.

REVIEW

Accounting vocabulary

acceptor of a bill (p. 405) accounts receivable turnover ratio (p. 413) acid-test ratio (p. 412) ageing of accounts receivable method (p. 396) allowance for doubtful debts (p. 394) allowance method (p. 394) bad debts expense (p. 393) bill of exchange (p. 404) collection period (p. 412) creditor (p. 388) days' sales in receivables (p. 412) debtor (p. 388) default on a bill (p. 409) direct write-off method (p. 399) discounting a bill receivable (p. 408) dishonour of a bill (p. 409)

doubtful debts expense (p. 393) drawer of a bill (p. 405) due date (p. 405) interest (p. 405) interest period (p. 405) interest rate (p. 405) maturity date (p. 405) maturity value (p. 405) payee of a bill (p. 405) percentage of sales method (p. 394) principal or principal amount (p. 405) promissory note (p. 404) quick ratio (p. 412) receivables (p. 388) uncollectable accounts expense (p. 393)

Student success tips

The following are hints on some common trouble areas for students in this chapter:

- Remember that the main difference between the allowance method and the direct write-off method is the *timing* of the recording of expense. The allowance method records the expense when there is impairment. The direct write-off method records the expense when the debt is identified as bad.
- Remember that there are two ways illustrated in the chapter to calculate/adjust the amount that is in the allowance for doubtful debts: percentage of sales and the target balance through the ageing of accounts method.
- Keep in mind that when a business accepts credit cards and debit cards as payment for sales, the card issuer charges a fee based on a small percentage of the sale. This fee is called card fee expense and reduces the amount of cash the business receives from the sale.
- The formula for calculating interest on a bill receivable is Principal x Interest rate x Time. Interest must be calculated as time goes by on the bill.
- When counting the number of days, don't count the day the bill was made when determining how many days have passed. Also, consider using the knuckle trick to help you recall the number of days in each month. Make a fist. Then, starting from the knuckle of the small finger, name the months as you tap each of your knuckles (ignoring the thumb knuckle) and the grooves in between. When you get to the end of your hand, go back to the first knuckle and continue reciting the months. Months that land on the knuckles (higher) are those with 31 days and those in the grooves (lower) are 30 days (or 28 or 29 for February).

ASSESS

Quick check

- **1** With good internal controls, the person who handles cash can also:
 - **a** account for cash receipts from customers
 - **b** account for cash payments
 - c issue credits to customers for sales returns
 - **d** none of the above
- **2** Bad debts' are the same as:
 - a uncollectable accounts
 - **b** doubtful accounts
 - c neither of the above
 - **d** both a and b
- **3** Which method of estimating bad debts focuses on Bad debts expense for the income statement?
 - a percentage of sales approach
 - **b** ageing of accounts approach
 - c net realisable value approach
 - **d** all of the above
- 4 Your business uses the allowance method to account for bad debts. At the beginning of the year, Allowance for doubtful debts had a credit balance of \$1100. During the year you recorded Bad debts expense of \$3000 and wrote off uncollectable receivables of \$2100. What is your year-end balance in Allowance for doubtful debts?
 - a \$1000
 - **b** \$2000
 - c \$3100
 - **d** \$3 200
- **5** Your ending balance of Accounts receivable is \$20 000. Use the data in the preceding question to calculate the net realisable value of Accounts receivable at year-end.
 - **a** \$18000
 - **b** \$19000
 - **c** \$20000
 - **d** \$21000
- **6** What is wrong with the direct write-off method of accounting for bad debts?
 - a The direct write-off method doesn't set up an allowance for doubtful debts
 - **b** The direct write-off method overstates assets on the balance sheet
 - c The direct write-off method doesn't match expenses against revenue very well
 - **d** All of the above
- **7** At 30 June, you have a \$10 000 bill receivable from a customer. Interest of 8% has accrued for six months on the bill. What will your financial statements report for this situation?
 - a Nothing, because you haven't received the cash yet
 - **b** Balance sheet will report the bill receivable of \$10 000
 - c Balance sheet will report the bill receivable of \$10,000 and interest receivable of \$400
 - **d** Income statement will report a bill receivable of \$10 000



- 8 Return to the data in the preceding question. What will the income statement report for this situation? **a** Nothing, because you haven't received the cash yet
 - **b** Interest revenue of \$400

 - c Bill receivable of \$10,000
 - **d** Both b and c
- 9 At year-end, your business has cash of \$10,000, receivables of \$50,000, inventory of \$40,000 and prepaid expenses totalling \$5000. Liabilities of \$60000 must be paid next year. What is vour acid-test ratio?
 - **a** 0.83
 - **b** 1.00
 - **c** 1.67
 - **d** Cannot be determined from the data given
- **10** Return to the data in the preceding question. A year ago, receivables stood at \$70,000; sales for the current year total \$730000. How many days did it take you to collect your average level of receivables?
 - **a** 45
 - **b** 35
 - **c** 30
 - **d** 20

Starters

S9-1 Internal control over the collection of receivables

Paul Lee is the accountant responsible for customer accounts in the accounts receivable subsidiary ledger. What duty will a good internal control system withhold from Paul Lee? Why?

59-2 Internal control over the credit department

What job must be withheld from a company's credit department in order to safequard its cash? If the credit department does perform this job, what can a credit department employee do to hurt the company?

S9-3 Recording credit and debit card sales

Restaurants do a large volume of business by credit and debit cards. Suppose that a restaurant had these transactions on a Saturday:

MasterCard credit card sales	\$10 000
Visa sales	8 000

Suppose that MasterCard charges merchants 2% and Visa charges 1.5%. Record these sale transactions for the restaurant.

59-4 Applying the allowance method (percentage of sales) to account for bad debts

During its first year of operations, The Signature Lamp Company earned revenue of \$350000 on account. Industry experience suggests that bad debts will amount to 2% of revenues. At 31 December 2021, accounts receivable total \$40,000. The company uses the allowance method to account for doubtful debts.

Requirements

- 1 Journalise The Signature Lamp Company's bad debts expense using the percentage of sales
- 2 Show how to report accounts receivable on the balance sheet at 31 December 2021. Follow the first reporting format illustrated on page 394.

LO 1

LO 1

LO 1

LO 2, 5