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## Module 9

### Table of Contents

- I. [Accounting for Receivables](#)
- II. [Uncollectible Accounts Expense](#)
- III. [Accounting For Notes Receivable](#)
- IV. [Discounting Notes Receivable](#)

### Instructions:

Click on any of the underlined titles in the table of contents to be directed to that section of the module. Click on the <[back](#)> symbol to return to the table of contents.



Click the link below to play an audio presentation that introduces you to the topics covered in this module.

[Link to “Module 9 Introduction](#)

## Module 9 Summary

### I. Accounting for Receivables

- A. **Accounts Receivable, Notes Receivable, Cash** and **Short-term Investments** are the most liquid of the company's assets. These items are either already cash balances (*Cash*) or they are items that will be turned into cash within a short period of time. Therefore, effective management of these assets is important in meeting the goal of *liquidity*.
1. To accomplish the liquidity management goals it is important to identify seasonal cycles relating to cash inflows and outflows and to **budget** accordingly. The decision to offer credit terms on sales has a big impact on cash flows. Funds that are “tied up” in receivables must be replaced with other sources of cash.
  2. **Credit policies** must be established that balance the tradeoff between sales revenue (which can be increased by loosening the credit standards customers must meet before credit sales are approved) and reliable and timely collections from the receivables (which can be improved by tightening credit standards).
  3. Cash that is tied up in receivables can be accessed in various ways. The accounts might be used as collateral for business loans. Accounts receivable can also be turned into cash prior to their collection by simply selling them (called **factoring** them) to a bank or finance company (which is called the **factor**). The amount received from the sale will of course be less than the face value of the receivables. When notes receivable are sold, the notes are said to have been **discounted**.
- B. The **Accounts Receivable Turnover Ratio** measures the *quality* company's accounts receivable (that is, their collectability). This ratio, therefore, is a measure of *liquidity*:

$$\text{Accounts Receivable Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Accounts Receivable}}$$

1. The average net accounts receivable is simply the balance at the beginning of the period averaged with the balance at the end of the period:  $[(AR_{\text{beginning balance}} + AR_{\text{ending balance}})/2]$ .

2. This ratio value measures the size of the period's credit sales relative to the receivables. This can be a very useful measurement:
- For example, if the credit terms are 30 days and if all sales are made on credit, there should be about one month's sales in accounts receivable at all times (assuming that the customers all pay their bills on time).
  - Since there are 12 months in a year, there should be 1/12 of a year's sales in Accounts Receivable throughout the year. If that is the case, then the turnover ratio will be equal to 12. (If  $AR/Sales = 1/12$ , then  $Sales/AR = 12$ .)
  - If some of the accounts are overdue, there will be more than a month's sales in accounts receivable and the turnover ratio will be less than 12. For example, if it takes 60 days (two months) on average to collect an account, there will be 2/12, or 1/6, of a year's sales tied up in accounts receivable. The turnover ratio will now be 6 (if  $AR/Sales = 1/6$ , then  $Sales/AR = 6$ ).
  - Therefore, given 30-day terms (and assuming no seasonality in sales), a turnover ratio that falls very far below 12 will be a cause for concern. Creditors will wonder why the accounts are so "old" and whether they are collectible or not, and they may begin to turn down loan requests or raise the company's interest rate. The threat of these actions will prompt the credit manager to find ways to speed up collections and increase the turnover ratio.
- C. Another statistic that measures the quality of the receivables is the **Number of Day's Sales in Receivables**:

$$\text{Day's Sales in Receivables} = \frac{\text{Average Accounts Receivable}}{\text{Average Daily Credit Sales}}$$

or

$$\text{Day's Sales in Receivables} = \frac{\text{Average Accounts Receivable}}{\text{Net Annual Credit Sales} / 365}$$

- This is a direct measurement of the time it takes to collect the average account receivable. If the firm's credit terms are 30 days and there is no seasonality in sales, a *Day's Sales in Receivables* figure very much over 30 days will be a cause for concern.

2. This calculation can also be made straight from the Accounts Receivable Turnover ratio. As we explained earlier, a turnover ratio of 12 means that 1/12 of a year's sales are tied up in accounts receivable. If we multiply 365 days by 1/12, we will find that the average account receivable is about 30 days old. If the turnover ratio value is 6, we would determine that the accounts are about 60 days old on average ( $365 \times 1/6 \sim 60$  days).

## II. Accounts Receivable and Uncollectible Accounts Expense.

*Receivables* are created when sales are made to customers who promise to pay at a later date. One of the inevitable costs of making credit sales is the loss that results from uncollectible accounts (called ***Uncollectible Accounts Expense***, or *Bad Debts Expense*). Two methods may be used to account for uncollectible accounts expense:

### A. Direct Write-off Method

1. When an account is finally recognized as uncollectible, *Uncollectible Accounts Expense* is debited and *Accounts Receivable* is credited. This entry is then posted to the general ledger accounts and to the customer's account in the subsidiary accounts receivable ledger. The form of the entry is as follows:

<b><i>Uncollectible Accounts Expense</i></b>	<b>\$X</b>	
<b><i>Accounts Receivable</i></b>		<b>\$X</b>

2. The direct write-off method is the simpler of the two methods, but it is likely to violate the *Matching Principle*. This happens when the account is written off and the expense is recognized in a different period from the one in which the sale to the customer was recorded. Therefore, the direct write-off method can only be used when there is no *material* difference between its use and the use of the *allowance method* (explained below). *Under the allowance method, the expense is recorded in the same period that the sales revenue is recorded.*

### B. Allowance Method

1. How does the Allowance Method accomplish this? At the end of each accounting period, *Uncollectible Accounts Expense* is debited for the *estimated* uncollectible accounts that are expected to arise from that period's sales. This is easy enough to understand, but then a complication arises. *Accounts Receivable* cannot be credited when this entry is made!

Why not? This is because the actual accounts that will become uncollectible are unknown when the entry is made, so specific customer accounts in the subsidiary Accounts Receivable Ledger cannot be written off. The balance in the Accounts Receivable general ledger account must always equal the total of all the customer accounts in the subsidiary Accounts Receivable Ledger, so *Accounts Receivable* in the general ledger cannot be credited unless we also write off a customer's account balance.

Since *Accounts Receivable* cannot be credited, a contra-account to *Accounts Receivable*, called the ***Allowance for Uncollectible Accounts***, is credited instead. The form of the entry is:

<b><i>Uncollectible Accounts Expense</i></b>	<b>\$X</b>	
<b><i>Allowance for Uncollectible Accounts</i></b>		<b>\$X</b>

2. *Uncollectible Accounts Expense* will be closed at the end of the period, but the *Allowance for Uncollectible Accounts* account, a contra-asset account, is carried on into the following period. When a customer's account balance is recognized as uncollectible in the following period, the entry to write off the account is:

<b><i>Allowance for Uncollectible Accounts</i></b>	<b>\$X</b>	
<b><i>Accounts Receivable</i></b>		<b>\$X</b>

***Instructor's Lecture Note***

Think of the *Allowance for Uncollectible Accounts* account as "temporary parking." Remember, we credited the *Allowance* account instead of *Accounts Receivable* because we did not know which customer account would prove to be uncollectible. In effect, we "parked" the credit that belongs in *Accounts Receivable* in the *Allowance* account until we were ready to write off a customer's account. Once a customer's account is identified as uncollectible, we will then move it out of temporary parking and into its permanent home. That is, we will remove the credit from the *Allowance* account (with a debit) and move it into *Accounts Receivable* (with a credit - see the entry above).

3. The *allowance method* allows the uncollectible accounts expense to be matched against the sales revenue of the period, but there are disadvantages in using it: the expense figure reported is only an estimate, and the method is more difficult to apply than the *direct write-off method*. However, GAAP requires its use, unless the

difference between it and the *direct write-off method* is **immaterial**. (Remember the *Principle of Materiality*?)

4. As we know, the *Allowance for Uncollectible Accounts* account is *contra* to *Accounts Receivable*. Therefore, on the balance sheet, the *Allowance* account is subtracted from *Accounts Receivable* to produce a *carrying value* to report for the receivables:

<b>Accounts Receivable</b>	<b>\$X</b>	
<b>Less: Allowance for Uncollectible Accounts</b>	<b>(X)</b>	
<b>Estimated Net Realizable Value of Accounts</b>		<b>\$X</b>

- a. For Accounts Receivable, this carrying value figure is the estimated **net realizable value** of the accounts, the estimated amount that can be *realized* (that is, collected) from the accounts.
- b. Note that *net realizable value* is the valuation basis that we applied in the previous module to distressed inventory items, and that it is now being used with receivables as well. Remember that there are three different asset valuation methods that we have covered so far. Assets may be carried on the balance sheet at *historical cost* (in accordance with the *Cost Principle*), at the *lower-of-cost or market* (only used for inventories), and at *net realizable value* (used for receivables and distressed inventory only).
5. **Ending Balances in the Allowance Account.** A balance left in the "Allowance" account at the end of the period results from errors in the estimates made in prior periods. A credit balance results from overestimation, a debit balance results from underestimation. Does a remaining balance in the *Allowance* account affect the current period's entry to record estimated *Uncollectible Accounts Expense*? It depends on the way the estimate is made.
- a. If the estimate is **based upon sales** (this is called a *percentage of sales method*, or an *income statement approach*), existing balances in the *Allowance* account are ignored. *Uncollectible Accounts Expense* is debited and the *Allowance for Uncollectible Accounts* account is credited for the amount of the current estimate.
- b. If the estimate is **based upon accounts receivable** (this is called an *aging of accounts receivable method*, or a

*balance sheet approach*), existing balances in the *Allowance* account are **not** ignored. *Uncollectible Accounts Expense* is debited and the *Allowance for Uncollectible Accounts* account is credited for the amount needed to create a balance in the *Allowance* account that is equal to the current estimate (see the example below for an illustration).

### Here's an Example!

- (1) Creditsales Corporation, which uses the allowance method to account for uncollectible accounts, began operations in year 20X1 and made credit sales of \$120,000 during the year. The balance of uncollected accounts at the end of 20X1 was \$10,000. No accounts were written off as uncollectible during the year, so cash collections amounted to \$110,000. At the end of 20X1 it was estimated that there would be \$1,000 of uncollectible accounts resulting from the sales in 20X1, so an adjusting entry was made to record the estimated uncollectible accounts. Summary entries from year 20X1 follow:

During 20X1	Accounts Receivable	120,000	
	Sales		120,000
During 20X1	Cash	110,000	
	Accounts Receivable		110,000
12/31/20X1	Uncollectible Accounts Expense	1,000	
	Allowance for Uncollectible Accounts		1,000

The general ledger accounts, after these entries posted to them, would appear as follows:

Accounts Receivable		Allowance for Uncollectible Accounts	Uncollectible Accounts Expense
X1 120,000	110,000 X1	1,000 X1	X1 1,000
bal. 10,000			

- (2) During 20X2, Creditsales again made credit sales of \$120,000 and collected \$119,100 of accounts. Another \$900 of accounts were written off as uncollectible. This left the Accounts Receivable account with a balance of \$10,000 at the end of 20X2, and it was again estimated that \$1,000 of accounts would prove to be uncollectible. Summary entries for 20X2 follow:

During 20X2	Accounts Receivable	120,000	
	Sales		120,000
During 20X2	Cash	119,100	
	Accounts Receivable		119,100
During 20X2	Allowance for Uncollectible Accounts	900	
	Accounts Receivable		900
12/31/20X2	Uncollectible Accounts Expense	1,000	
	Allowance for Uncollectible Accounts		1,000

Posting these entries to the general ledger accounts results in the following:

Accounts Receivable		Allowance for Uncollectible Accounts		Uncollectible Accounts Expense
bal. 10,000	119,100 X2	X2 900	1,000 bal.	X2 1,000
X2 120,000	900 X2		100 bal.	
bal. 10,000			1,000 X2	
			1,100 bal.	

Note that the balance in the expense account is equal to the \$1,000 of estimated losses from uncollectible accounts, but the allowance account balance is \$100 higher than the estimate. The \$100 error in the allowance account is caused by the error made at the end of 20X1 when \$1,000 of losses was estimated. Since only \$900 of the accounts were actually written off, the \$100 error has remained in the allowance account and now causes it to be overstated. So what do we do about this? It depends on the way we obtained our estimate.

- (1) ***If the company bases its estimated uncollectible accounts on sales information, then this overstatement is allowed to appear on the balance sheet. This will result in \$8,900 being reported as the net realizable value of the accounts (\$100 less than is actually estimated):***

<u>Balance Sheet at the end of 20X2:</u>		<u>Income Statement for 20X2:</u>	
Accounts Receivable:	\$10,000	Uncollectible Accounts Exp.	\$1,000
Less: Allowance for U.A.	(1,100)		
Net Realizable Value	\$ 8,900		

- (2) ***If the company bases its estimate for uncollectible accounts on the accounts, themselves, then we “adjust” the amount that is recorded, changing to the amount that is needed in order to create a balance in the Allowance account equal to the estimate. In this case, since there is already a \$100 credit balance in the Allowance account and the estimate is \$1,000, the entry will be made for \$900:***

12/31/20X1	Uncollectible Accounts Expense	900	
	Allowance for Uncollectible Accounts		900

This entry produces the “correct” balance in the *Allowance* account, but it also means that the amount reported as expense on the income statement does NOT equal the estimated uncollectible account losses:



Accounts Receivable		Allowance for Uncollectible Accounts		Uncollectible Accounts Expense	
bal. 10,000	119,100 X2	X2 900	1,000 bal.	X2 900	
X2 120,000	900 X2		100 bal.		
bal. 10,000			900 X2		
			1,000 bal.		

Balance Sheet at the end of 20X2:

Accounts Receivable:	\$10,000
Less: Allowance for U.A.	(1,000)
Net Realizable Value	\$ 9,000

Income Statement for 20X2:

Uncollectible Accounts Exp.	\$900
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 End of Comprehensive Example
 

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6. In the illustration above, our \$100 error appears either on the income statement or the balance sheet, depending on the way the estimate was obtained. Over time, we will over-estimate the uncollectibles in some years and under-estimate them in others. These errors will affect the income statements or balance sheets of each of the years in question. You may wonder why the “error” is not corrected in some way. This is because errors in estimates, under GAAP, are viewed as normal and inevitable. Also, the errors have affected the statements of prior periods, so the “damage” has already been done. As long as the prior period error is immaterially small, no attempt is made to correct it.



Click the link below to play a video presentation that “walks you through” the illustration above.

[Link to “Allowance Method” Presentation](#)

### III. Notes Receivable -- Terms and Interest Calculations

- A. **Notes Receivable** are written promises from a customer or a client (the party signing the note and promising to pay is called the **maker**) to pay the business (the party who will be paid is called the **payee**) a definite amount (the **maturity value**, which is equal to **principal** plus **interest**) on a specific future date (the **maturity date** or **due date**).

- B. Interest on the note is calculated by multiplying the **principal amount** (the amount of the loan) by the stated interest rate to determine the amount of interest charged annually. If the term of the note is less than one year, this amount must be multiplied by the fraction of the year the note is outstanding. In doing this calculation, a **traditional business year** of 360 days (rather than 365) may be used:

$$\text{Interest} = \text{Principal} \times \text{Interest Rate} \times (\text{Term in Days} / 360)$$

- C. The **duration** (or **term**) of the note is the number of days or months that the note will earn interest before it comes due.
1. When duration is stated in months, the **maturity date** is the same day of the month as the note is dated, but a given number of months later (e.g., a 6-month note dated January 10 would mature on July 10). When stated in days (e.g. a 60-day note dated January 10), it is necessary to count the number of days that the note will earn interest in order to identify the maturity date. Use the following procedure to calculate the maturity date:
    - a. First, note that the day the note is dated is an "interest-free" day during which no interest is charged; but the day the note matures is an "interest-earning" day. That final day's interest must be paid along with all the others stated in the term of the note. Therefore, begin by subtracting the date of the note from the total number of days in that month. This will tell you how many days' worth of interest will have been earned in the month.

***Here's an Example!***

Assume that Kramer Company accepts a \$12,000 note from a customer in settlement of an overdue account receivable balance. The term of the note is 90 days, and the note is dated November 12. November 12 is an "interest-free" day. Therefore, by the end of the day on November 30, 18 days worth of interest has been earned by Kramer Company (and incurred by the customer):

Number of Days in November:	30
Date of Note:	<u>(12)</u>
Number of Days' Interest Earned in November:	18

- b. Keep counting and adding days, month by month, until the number equals the duration of the note. This day, the last one added to make the total equal the duration, is the maturity date of the note.

Returning to Kramer Company's note example from above, we will need to add days in December, January and February in order to total up 90 days' interest earned. This last day, February 10, represents the maturity date of the note:

Number of Days in November:	30
Date of Note:	<u>(12)</u>
Number of Days' Interest Earned in November:	18
Days in December:	31
Days in January:	31
Days in February:	<u>10</u>
Total number of Days' Interest Earned:	90

3. Sometimes the maturity date is simply stated in the note, with no mention of duration. It is a simple matter to use this same procedure to count the days from the date of the note to the stated maturity date in order to determine the duration. For example, had the Kramer Company note in the example above been dated November 12 with a stated maturity date of February 10, we could simply count the days of interest that would be earned during this time span (18 in November, 31 in December, 31 in January, and 10 in February, for a total of 90) in order to determine the duration.

#### D. *Entries for Notes*

1. When the note is issued by the borrower and accepted by the creditor, the creditor debits the **Notes Receivable** account:

<b>Notes Receivable</b>	\$X	
<i>Sales (or Cash, Accounts Receivable, etc.)</i>		\$X

2. When the note is collected at maturity, the entry is:

<b>Cash</b>	\$X	
<b>Notes Receivable</b>		\$X
<b>Interest Revenue</b>		\$X

3. If the note has not matured by the end of the period, an adjusting entry for accrued interest revenue must be made:

<b>Interest Receivable</b>	<b>\$X</b>	
<b>Interest Revenue</b>		<b>\$X</b>
<i>To adjust for accrued interest at end of period.</i>		

4. If an adjusting entry for accrued interest revenue was previously made and it was not reversed (reversing entries were described and illustrated in Module 4), the entry to record the later collection of the note is:

<b>Cash</b>	<b>\$X</b>	
<b>Notes Receivable</b>		<b>\$X</b>
<b>Interest Receivable</b>		<b>\$X</b>
<b>Interest Revenue</b>		<b>\$X</b>
<i>To record collection of note on its maturity date.</i>		

If no adjusting entry was previously made, or one was made and it was reversed, the entry to record the later collection of the note is:

<b>Cash</b>	<b>\$X</b>	
<b>Notes Receivable</b>		<b>\$X</b>
<b>Interest Revenue</b>		<b>\$X</b>
<i>To record collection of note on its maturity date.</i>		

**Illustration:**

Suppose the Kramer Company note that was used in the examples above carried a 6% interest rate. The entries to record the origination of the note, the accrued interest at the end of the year, and the collection of the note on its maturity date are as follows:

<b>Nov. 12</b>	<b>Notes Receivable</b>	<b>12,000</b>	
	<b>Accounts Receivable</b>		<b>12,000</b>
	<i>To record origination of the note</i>		
<b>Dec. 31</b>	<b>Interest Receivable</b>	<b>98</b>	
	<b>Interest Revenue</b>		<b>98</b>
	<i>To record 49 days' interest earned (<math>\\$12,000 \times 6\% \times 49/360 = \\$98</math>)</i>		
<b>Feb. 10</b>	<b>Cash</b>	<b>12,180</b>	
	<b>Notes Receivable</b>		<b>12,000</b>
	<b>Interest Receivable</b>		<b>98</b>
	<b>Interest Revenue</b>		<b>82</b>
	<i>To record collection of the note and 41 days' interest earned since December 31 (<math>\\$12,000 \times 6\% \times 41/360 = \\$82</math>)</i>		

E. **Dishonored Notes.** When a note is not paid on its maturity date, the note is said to have been *defaulted* or **dishonored**.

1. It is still very possible that payment will be received, but this is somewhat questionable. In any event, the note has matured, and we will need to credit *Notes Receivable* to remove the defaulted note from the accounts. The maker of the note is still responsible for paying the principal and interest, so when we credit *Notes Receivable* we will then debit a different receivable account for the maturity value of the note. This might be a specific account that is used for questionable receivables (*Dishonored Notes Receivable*, *Overdue Receivables*, etc.), or we might simply debit *Accounts Receivable*. If this latter approach is used, the form of the entry is:

<b>Accounts Receivable</b>	<b>\$X</b>
<b>Notes Receivable</b>	<b>\$X</b>
<b>Interest Revenue</b>	<b>\$X</b>

Note that the interest revenue is being recorded even though the note has been dishonored. According to the *Revenue Recognition Concept*, revenues are recorded when they have been earned. Since this interest revenue has been earned, it will be recorded.

#### **A Word of Explanation**

Does it bother you that we are recording interest revenue on a defaulted note?

Well, consider this. All we know right now is that the maker of the note did not pay the principal and interest in a timely manner. We have no reason to believe that we will not eventually collect all that is due to us. It is only when we have evidence that makes it *probable* that we will not be able to collect the interest that we would not record it; and in that case we would most likely also write off the note and record a loss.

Under the *Principle of Full Disclosure* (first discussed in Module 8), the company *will* need to let investors and creditors know that a portion of its receivables represent dishonored notes and the interest that was earned on them. This will probably be done in a footnote to the balance sheet. The company could also make the disclosure on the face of the balance sheet by recording the overdue notes in a separate receivable account, such as *Dishonored Notes Receivable*, instead of *Accounts Receivable*. This would make the investors and creditors fully aware of the situation and the amounts involved, which would be appropriate if the amounts are large enough to be *material* in nature. (Do you remember the *Principle of Materiality* that was discussed in Module 6?)

2. If the receivable is immediately collected and no additional interest is charged, the following entry will be made:

<b>Cash</b>	<b>\$X</b>	
<b>    Accounts Receivable</b>		<b>\$X</b>

3. Most notes are eventually collected, but if a dishonored note does prove to be uncollectible we would record the eventual write-off of the receivable in the same way that any receivable is written off:

<b>Allowance for Uncollectible Accounts</b>	<b>\$X</b>	
<b>    Accounts Receivable</b>		<b>\$X</b>

or, if the direct write-off method is being used,

<b>Uncollectible Accounts Expense</b>	<b>\$X</b>	
<b>    Accounts Receivable</b>		<b>\$X</b>

**Illustration:**

Let's return to the Kramer Company note example, but let's now assume that the note was dishonored on its February 10 maturity date. In that case, the entry on February 10 will be:

<b>Feb. 10</b>	<b>Accounts Receivable</b>	<b>12,180</b>	
	<b>    Notes Receivable</b>		<b>12,000</b>
	<b>    Interest Receivable</b>		<b>98</b>
	<b>    Interest Revenue</b>		<b>82</b>

To record the dishonor of the note and 41 days' interest earned since December 31 ( $\$12,000 \times 6\% \times 41/360 = \$82$ )

If Kramer Company pays the dishonored note the next day and no additional interest is charged, the entry will be:

<b>Feb. 11</b>	<b>Cash</b>	<b>12,180</b>	
	<b>    Accounts Receivable</b>		<b>12,180</b>

If Kramer Company does not pay the dishonored note and it is written off as uncollectible on July 1, the entry will be:

<b>July 1</b>	<b>Allowance for Uncollectible Accounts</b>	<b>12,180</b>	
	<b>    Accounts Receivable</b>		<b>12,180</b>

4. Before we end our discussion of dishonored notes receivable, we should mention that interest on a dishonored note continues to be earned after the maturity date of the note. In fact, it is common for the agreement to stipulate that a higher interest rate will be applied following the maturity date if the note is dishonored. This means that the final collection of a dishonored note will be recorded as follows:

<b>Cash</b>	<b>\$X</b>	
<b>    Accounts Receivable</b>		<b>\$X</b>
<b>    Interest Revenue</b>		<b>\$X</b>

Whether the same interest rate or a higher one applies to the dishonored note, it will be applied to the full maturity value of the dishonored note.

**Illustration:**

To illustrate this last point, let's say that the Kramer Company note agreement calls for interest to be applied at a 10% rate to the balance due in the event of a default. In that case, the entry on February 10 will be the same as it was before:

<b>Feb. 10</b>	<b>Accounts Receivable</b>	<b>12,180</b>	
	<b>    Notes Receivable</b>		<b>12,000</b>
	<b>    Interest Receivable</b>		<b>98</b>
	<b>    Interest Revenue</b>		<b>82</b>

To record the dishonor of the note and 41 days' interest earned since December 31 ( $\$12,000 \times 6\% \times 41/360 = \$82$ )

If Kramer Company pays the dishonored note on February 28, the entry will be:

<b>Feb. 28</b>	<b>Cash</b>	<b>12,180.00</b>	
	<b>    Accounts Receivable</b>		<b>12,180.00</b>
	<b>    Interest Revenue</b>		<b>60.90</b>

To record the collection of the dishonored note and 18 days' interest earned since February 10 ( $\$12,180 \times 10\% \times 18/360 = \$60.90$ )

## IV. Accounting for Discounted Notes Receivable

- A. ***Discounted Notes Receivable.*** A large amount of cash can be tied up in receivables, and a company may decide to use its receivables to obtain needed funds.
1. One way to obtain cash from the receivables is by using them as collateral for a loan. Receivables may be ***pledged*** as collateral, or they may be ***assigned***. If *pledged*, the company usually keeps the receivables, and keeps any cash that is collected from them separate from other receivables and cash balances until the loan is repaid. If *assigned*, the company “gives” the receivables to the lender, often instructing the customers to pay the lender directly when the receivables come due. The lender collects the receivables, and credits the amounts collected against the loan balance. Any excess amount collected is refunded to the company.
  2. Another way to obtain cash from receivables is by ***factoring*** them. As we indicated earlier, “factoring” refers to an outright sale of the accounts. The buyer, usually to a bank or to another financial institution, is referred to as the ***factor***. The factor pays the company a discounted price for the receivables, and then takes ownership of them. The sale may be made on a “with recourse” basis (the lender can return overdue receivables to the seller for a refund), or on a “without recourse” basis (the lender is “stuck” with the receivables, and is responsible for collection costs and uncollectible account losses). The price received for the receivables will be better if the sale is made on a “with recourse” basis.
- B. When notes receivable are sold to another party, the notes are said to have been ***discounted***. This is because the seller of the note receives a ***discounted price***, one that is less than the maturity value of the note. The steps in determining the amount of the discount, and the amount the seller will receive, are as follows:
1. The buyer and seller of the note negotiate a ***discount rate***. This is the rate of interest the buyer of the note will earn while waiting for the note to mature.
  2. The ***discount period*** is determined. This is the number days the buyer of the note will hold the note and earn the interest from it before it matures.



3. The *discount rate* is applied to the note's *maturity value* over the *discount period*, and the amount of the *discount* is calculated.
4. The discount is subtracted from the maturity value in order to calculate the *proceeds*, the amount that is paid to the seller for the note.

***Here's an example!***

To illustrate this process, let's say that Bahn Corporation discounts a \$10,000 note with First City Finance Company. The note is dated August 5, carries a 6% face rate, and has a 60-day term. The maturity date of the note is, therefore, October 4. Bahn and First City agree upon a 9% discount rate, and the note is discounted on August 10.

(1) The note's maturity date is calculated as follows:

Number of Days in August:	31
Date of Note:	<u>(5)</u>
Number of Days' Interest Earned in August:	26
Days in September:	30
Days in October:	<u>4</u>
Total Number of Days' Interest Earned:	60

(2) The number of days in the discount period is calculated as follows:

Number of Days in August:	31
Date of Discount:	<u>(10)</u>
Number of Days' Interest Earned in August:	21
Days in September:	30
Days in October:	<u>4</u>
Total Number of Days in Discount Period:	55

(3) The maturity value of the note is:  $\$10,000 + (\$10,000 \times 6\% \times 60/360) = \$10,100$ .

(4) The amount of discount is based upon the maturity value, the discount rate, and the number of days in the discount period:  $\$10,100 \times 9\% \times 55/360 = \$138.88$ .

(5) The proceeds are equal to the maturity value of the note minus the discount:  
 $\$10,100 - \$138.88 = \$9,961.12$ .

The entry made by Bahn to record the discounting of the note is:

<b>Aug. 10</b>	<b>Cash</b>	<b>9,961.12</b>	
	<b>Interest Expense</b>	<b>38.88</b>	
	<b>Notes Receivable</b>		<b>10,000.00</b>
	<i>To record note discounted to First City Finance Co.</i>		

*You may well be confused by this entry, since Interest Expense is being debited and you're used to recording interest revenue from notes receivable. There is logic here, though. Note that the company has held the note for 5 days and earned interest from it during those 5 days. But that interest, along with the principal amount of the note, has been given up in order to acquire funds from the bank. In fact, because the discount rate was high, the company gave up an additional \$38.88 above and beyond the note's principal and accrued interest. This additional amount was paid in order to obtain the funds from the bank, and money paid to obtain bank financing represents interest expense.*

*It is possible for interest revenue to be recorded when notes are discounted, but this will only occur if the discount rate is very low. For example, had the discount rate been set at just 4%, the amount of the discount would have been just \$61.72 ( $\$10,100 \times 4\% \times 55/360$ ). In that case, the proceeds would have been \$10,038.28 ( $10,100 - 61.72$ ), and the entry to record the transaction would have been:*

<b>Aug. 10</b>	<b>Cash</b>	<b>10,038.28</b>	
	<b>Notes Receivable</b>		<b>10,000.00</b>
	<b>Interest Revenue</b>		<b>38.28</b>
	<i>To record note discounted to First City Finance Co. at 4% discount rate</i>		

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