LEAP
LABOR EDUCATION ACTION PROGRAM

Examination Preparation Booklet

Work Scheduling/ Inventory Control

Booklet No. 24

CSEA

Booklet #24

Work Scheduling/
Inventory Control

The CSEA Examination Preparation Booklet Series is designed to help members prepare for New York State and local government civil service examinations. This booklet is designed for practice purposes only and its content may not conform to that of any particular civil service examination.

WORK SCHEDULING

In this section, which is found on a variety of exams, you are given information about workers and schedules in an imaginary unit, and asked to answer a set of questions about the scheduling of those workers. A partially completed table or calendar is provided to help you in answering the questions. In most cases you are allowed to fill in the table or calendar right in the test booklet. If not, you will probably want to make one up yourself on your scrap paper. By filling in the table or calendar, or making notes on scrap paper, you can obtain the data you need to answer the questions. We have used calendars in this section, but to give you more practice, we've left them completely blank. Please forgive us.

Sometimes people think they can find a short cut to filling in the data in the table, but there often isn't one. This section is like a puzzle, and you need patience and endurance to do it correctly. It's important to keep in mind that you should make no assumptions; answer the questions using only the data you've been given. "Real life"' rules, or the regulations that apply in your office, are irrelevant here.

We've provided two different problems for you to practice with. We've made the first problem less complex than the second one to help you become more comfortable with the format. If you'd like more practice, we suggest you also do the section on Inventory Control in this booklet because the format is similar and the skills needed to answer correctly are basically the same. Answers and explanations are in the back of the booklet.

Good Luck!

Please use the information provided below to answer Questions 1-8.

Assume that you are the supervisor of a unit that works seven days a week. You need to determine the work and vacation schedules of the employees you supervise for the month of July.

THE EMPLOYEES:

Alan W.	9 years seniority	computer operator
Jane B.	4 1/2 years seniority	typist
Alex H.	5 years seniority	security staff
Tony E.	4 years seniority	security staff
Andre T.	4 2/3 years seniority	typist
Mary W.	11 years seniority	security staff
Andy R.	13 years seniority	computer operator
Rhonda L.	2 years seniority	computer operator
Ethel R.	15 years seniority	typist
Roger G.	3 years seniority	security staff

THE VACATION PREFERENCES OF THE EMPLOYEES:

	1st vacation day	last vacation day
Alan W.	7/1	7/19
Jane B.	7/15	7/29
Alex H.	7/8	7/22
Tony E.	7/22	7/30
Andre T.	7/1	7/14
Mary W.	7/1	7/22
Andy R.	7/15	7/30
Rhonda L.	7/20	7/31
Ethel R.	7/1	7/27
Roger G.	7/21	7/31

<u>IMPORTANT</u> <u>REGULATIONS</u> <u>REGARDING</u> <u>VACATION</u> <u>LEAVE</u>:

Employees with seniority have first choice for their preferred vacation dates. Seniority should be calculated separately for each of the three occupational groups.

There must be two security employees on duty each working day in July. This overrides any other considerations.

There must be one typist on duty each working day in July. This overrides any other considerations.

Employees with least seniority, when denied their first choice of vacation dates, should automatically be scheduled ahead for vacation on the very next date closest to the dates they had originally preferred and the length of the vacation extended the appropriate number of days. Example: A vacation originally requested for 7/13, but changed because of seniority would be moved <u>ahead</u> to a date after 7/13 (to 7/16, for example).

You may want to use the calendar on the next page to help you organize this information.

JULY

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1. How many employees should be on vacation on July 16?
   a. four employees
   c. six employees
   b. five employees
   d. seven employees

2. How many employees should be on vacation on July 22?
   a. five employees
   c. seven employees
   b. six employees
   d. eight employees

3. How many typists will be working on July 15?
   a. one
   c. three
   b. two
   d. none

4. How many workers will be on vacation on July 31?
   a. two
   c. four
   b. three
   d. five

5. Which of the following is true of the employees in the unit?

   I.   Andy R., Jane B., T6ny E. and Mary W. will be on vacation on 7/22

   II.   Ethel R., Andre T., Mary W. and Alex H. will be on vacation on 7/8

   III. Rhonda L., Tony E. and Roger G. will be on vacation on 7/31

   IV.   Andy R., Jane B. and Ethel R. will be on vacation on 7/28

   a.   only Statements I, II, and III are true

   b.   only Statements I and II are true

   c.   only Statements II and III are true

   d.   only Statement II is true

6. How many typists will be working on July 28?
   a. one
   b. two

   c. three
   d. four

7. How many computer operators will be working on July 23?
   a. one
   b. two

   c. three
   d. four

8. What day will Roger G. begin his vacation?
   a. July 21
   b. July 22

   c. July 23
   d. July 24

Please use the information provided below to answer Questions 9-15.

Assume that you are the supervisor of a unit that works seven days a week. You need to determine the work and vacation schedules of the employees you supervise for the month of August.

THE EMPLOYEES:

Robert L.	7 years seniority	security staff
Ann N	7 1/2 years seniority	computer operator
Thomas B.	9 years seniority	typist
Phyllis P.	11 years seniority	computer operator
Mike D.	3 years seniority	security staff
Jane R.	2 years seniority	security staff
Alan R.	8 years seniority	computer operator
Susan T.	10 years seniority	typist
George W.	6 years seniority	computer operator
Barbara L.	4 years seniority	typist
Jack B.	13 years seniority	security staff
Grace N.	12 years seniority	typist

THE VACATION PREFERENCES OF THE EMPLOYEES:

	1st vacation day	last vacation day
Robert L.	8/3	8/18
Ann N.	8/17	8/28
Thomas B.	8/19	8/28
Phyllis P.	8/5	8/20
Mike D.	8/14	8/21
Jane R.	8/20	8/27

Alan R.	8/12	8/26
Susan T.	8/s	8/26
George W.	8/3	8/14
Barbara L.	8/7	8/21
Jack B.	8/10	8/18
Grace N.	8/4	8/25

IMPORTANT REGULATIONS REGARDING VACATION LEAVE:

Employees with seniority have first choice for their preferred vacation dates. Seniority should be calculated separately for each of the three occupational groups.

There must be two security employees on duty each working day in August. This overrides any other considerations

There must be two typists on duty from 8/11 to 8/18. This overrides any other considerations.

There must be two computer operators on duty each working day in August. This overrides any other considerations.

Employees with least seniority, when denied their first choice of vacation dates, should automatically be scheduled ahead for their vacation on the very next date closest to the date they originally preferred, and the length of the vacation extended the appropriate number of days. Example: A vacation originally requested for 8/18, but changed because of seniority would be moved ahead to a date after 8/18 (to 8/21, for example).

You may wish to use the calendar on the next page to help you organize this information.

AUGUST

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

9.   How many workers will be on vacation on August 21?
    a.   five   c. seven
    b.   six   d. eight

10.   How many workers will be working on August 28?
    a.   six   c. eight
    b.   seven   d. nine

11.   Of the following, who will <u>not</u> work on August 27?
    a.   Alan R.   c. Mike D.
    b.   George W.   d. Susan T.

12.   Of the following, who will work on August 19?
    a.   Thomas B.   c. Ann N.
    b.   Barbara L.   d. Mike D.

13. How many typists will be on vacation on August 19?
    a.   one   c. three
    b.   two   d. four

14.   How many workers will be on vacation on August 17?
    a.   five   c. eight
    b.   six   d. nine

15.   How many workers will work on August 11?
    a.   seven   c. five
    b.   eiqht   d. six

INVENTORY CONTROL

This kind of problem appears on a variety of exams. It requires a similar approach to that used in the "Work Scheduling" section in the first part of this booklet. You are given a lot of data, and then asked to answer a set of questions based on the information you've been given. The "inventory" may vary; it may include office supplies, cleaning supplies, or mailroom supplies, depending on the exam you're taking. In order to answer these questions, it's necessary to carefully organize the data you've been given. You can do this by making charts on your scrap paper, and/or directly filling in the table in the test booklet.

It's very important that you assume nothing, and that you use only the information you've been given -- even if it is not the policy or procedure that might be used in "real life." We recommend that you use a calculator if it is allowed on the exam. This type of problem can be very tedious, and using a calculator can sometimes help to cut down on the tedium and increase your endurance. If you're not sure how to approach these questions, we suggest you do them one at a time, looking up the answers and explanations in the back of the booklet after each one.

If you'd like more practice with this type of problem, we suggest you do the "Work Scheduling" section in this booklet, since the skills needed to do well are very similar.

Good Luck!

Please use the information below to answer Questions 1-10.

Assume you are in charge of ordering the following supplies for Unit X:

DESCRIPTION	REORDER ONLY WHEN AMOUNT FALLS TO:	AMOUNT OF EACH REORDER
Copier paper (500 sheets/ream)	15 reams	20 reams
Copier fluid (5 bottles/carton)	2 cartons	15 cartons
Copier toner (4 bottles/pack)	1 pack	10 packs
Writing pads (12 pads/pack)	4 packs	10 packs
Typing paper (500 sheets/ream)	3 reams	15 reams
Correction fluid (12 bottles/carton)	I carton	5 cartons

You should assume that no supplies are reordered more than once in any one week, and that no reordering was done the first week. Reorders occur only when stated, when the facts indicate supplies have fallen below the level required, or when the facts show logically that reordering must have occurred in order for the given totals to make sense. All reorders are filled the same day they are requested.

Other important facts:

Twenty bottles of copier fluid were used in the first week.

The amount of copier fluid at the beginning of the fourth week was double the amount of copier fluid in the unit at the beginning of the first week.

Eight bottles of copier toner were used in the first week.

Forty writing pads were used in week one, and fifty writing pads were used in week two.

The unit had twice as many cartons of correction fluid at the beginning of the first week as it had at the beginning of the third week.

In the first week, twenty-seven reams of copier paper were used.

A total of six reams of copier paper were used in the second and third weeks.

There were twelve reams of typing paper in the unit at the beginning of the third week.

Now that you have the facts, here is a table to help you in answering the questions that follow. Please note that some information has already been provided. All figures in the table are in terms of reams, packs, or cartons.

	Copier paper	Copier fluid	Copier toner	Writing pads	Typing paper	Correction fluid
Beginning of week 1	42			11		
Beginning of week 2		3	2		5	
Beginning of week 3						2
Beginning of week 4						

\

1. How many reams of copier paper were left in the unit at the beginning of the fourth week?
    a. 9   c. 29
    b. 16   d. 41

2. How many cartons of copier fluid were in the unit at the beginning of the first week?
    a. 7   c. 23
    b. 5   d. 18

3. How many cartons of copier fluid were used in the unit in the second and third weeks, if copier fluid was only reordered once during this time?
    a. 4   c. 11
    b. 28   d. cannot be determined from the information given

4. How many packs of copier toner did the unit have at the beginning of the first week?
    a. 12   c. 6
    b. 4   d. 1

5. If the unit used a total of sixteen bottles of copier toner in the second and third weeks, how many bottles did the unit have at the beginning of the fourth week? Assume that the copier fluid was only reordered once during this time.
    a. 8   c. 24
    b. 6   d. 32

6. Writing pads were reordered the first time in:
    a. week one   c. week three
    b. week two   d. week four

7.   The number of packs of writing pads at the beginning of the fifth week was half the amount of the number of packs of writing pads left at the beginning of the third week. How many writing pads were left at the beginning of the fifth week?

       a.   6.75   c.   81
       b.   7   d.   84

8.   How many reams of typing paper were used by the unit in the second week?

       a.   8   c.   12
       b.   7   d.   15

9.   How many bottles of correction fluid did the unit use in the first and second weeks if none were reordered during this time?
       a.   2   c.   12
       b.   6   d.   24

10.   In the third week, fourteen bottles of correction fluid were used. This means that correction fluid was reordered:
       a.   the second week   c. the fourth week
       b.   the third week   d. there was no need to reorder

ANSWER KEYS

WORK SCHEDULING

1. c	6. b	11. b
2. b	7. a	12. c
3. a	8. c	13. d
4. b	9. d	14. b
5. c	10. c	15. a

INVENTORY CONTROL

1. c	6 b
2. a	7. c
3. a	8. a
4. b	9. d
5. d	10. b

ANSWERS AND EXPLANATIONS

WORK SCHEDULING:

There are a number of ways you could have approached these problems. You may have filled in the calendar with days worked, or with the vacation days of workers. You may have divided the workers into their job categories on scrap paper, and then transferred relevant information onto a table, or just used the data on your scrap paper to answer the questions. It doesn't matter how you approach these problems, as long as you are comfortable with your approach, and you get the right answers. We've outlined one approach below, but there are a number of acceptable methods.

Our first step was to note that there had to be two security employees and one typist on duty each working day in July. We then examined each group of workers separately. Outside of seniority requirements, there were no special requirements for the computer operators. The names of the computer operators, or their initials, could then be written onto the calendar for the vacation dates each requested. We looked at typists next. The requirement of having one typist work each day was met without changing the vacation preference of any of the typists, so their names or initials could be written onto the calendar for the vacation dates each preferred. The security workers, however, could not all get their preferred vacation dates. We wrote down each employee's name, seniority, and preferred dates. It looked like this:

Mary W.	11 years	7/1 -	7/22
Alex H.	5 years	7/8 -	7/22
Tony E.	4 years	7/22 -	7/30
Roger G.	3 years	7/21 -	7/31

Because of their seniority, Mary and Alex have preference for their vacation days, so we wrote their names on the calendar for those dates. Tony's vacation will have to be moved ahead to the first available date. (The instructions state that the date must be moved ahead.) Thus, his vacation will start on 7/23 when Mary and Alex return. To make sure that two security staff members are working each day, Roger' 5 vacation will also have to be moved to 7/23. It doesn't matter that there's no time for the two sets of employees to get together at work to catch up on anything the other group should know, or to discuss anything important they might have missed while on vacation. The rules of the problem state that people need to be given the very next date closest to the date they orginally preferred. After we figured out the security staff's schedule, we filled in their names on the calendar. Our version of the completed calendar looked like this:

JULY

	1	2	3	4	5	6	7
Comp.	Alan	Alan	Alan	Alan	Alan	Alan	Alan
Typ.	Ethel	Ethel	Ethel	Ethel	Ethel	Ethel	Ethel
	Andre	Andre	Andre	Andre	Andre	Andre	Andre
Sec.	Mary	Mary	Mary	Mary	Mary	Mary	Mary
	8	9	10	11	12	13	14
Comp.	Alan	Alan	Alan	Alan	Alan	Alan	Alan
Typ.	Ethel	Ethel	Ethel	Ethel	Ethel	Ethel	Ethel
	Andre	Andre	Andre	Andre	Andre	Andre	Andre
Sec.	Mary	Mary	Mary	Mary	Mary	Mary	Mary
	Alex	Alex	Alex	Alex	Alex	Alex	Alex
	15	16	17	18	19	20	21
Ccmp..	Alan	Alan	Alan	Alan	Alan	Andy	Andy
	Andy	Andy	Andy	Andy	Andy	Rhonda	Rhonda
Typ.	Ethel	Ethel	Ethel	Ethel	Ethel	Ethel	Ethel
	Jane	Jane	Jane	Jane	Jane	Jane	Jane
Sec.	Mary	Mary	Mary	Mary	Mary	Mary	Mary
	Alex	Alex	Alex	Alex	Alex	Alex	Alex
	22	23	24	25	26	27	28
Ccmp.	Andy	Andy	Andy	Andy	Andy	Andy	Andy
	Rhonda	Rhonda	Rhonda	Rhonda	Rhonda	Rhonda	Rhonda
Typ.	Ethel	Ethel	Ethel	Ethel	Ethel	Ethel	Jane
	Jane	Jane	Jane	Jane	Jane	Jane	
Sec.	Mary	Tony	Tony	Tony	Tony	Tony	Tony
	Alex	Roger	Roger	Roger	Roger	Roger	Roger
	29	30	31				
Comp.	Andy	Andy	Rhonda				
	Rhonda	Rhonda					
Typ.	Jane						
Sec.	Tony	Tony	Tony				
	Roger	Roger	Roger				

With the aid of the calendar, we were able to answer Questions 1-8.

1. The answer is choice c. Looking at the calendar for July 16, we can see the following six names: Alan, Jane, Alex, Mary, Andy and Ethel.

2. The answer is choice b. Looking at the calendar for July 22, we can see the following six names: Jane, Alex, Mary, Andy, Rhonda and Ethel.

3.   The answer is choice a. Jane and Ethel will both be on vacation on July 15. That leaves one typist working on that date.

4.   The answer is choice b. Rhonda, Tony and Roger will all be on vacation on July 31.

5. The answer is choice c. The best way to approach a problem like this one is to break it down into smaller parts. In this case, that would mean determining whether each statement was true or false before trying to pick the winning combination. You might make a list (I, II, III, IV) on your scrap paper and make a note next to each roman numeral as to whether the statement it stands for is true or false. This makes it easier to remember and can save you time and spare you frustration later. Statement I is incorrect because Tony will not be on vacation on 7/22. Statements II and III are true, and are supported by the table. Statement IV is incorrect because Ethel will not be on vacation on 7/28. Only Statements II and III are true, so choice c is correct.

6.   The answer is choice b. Since Jane will be the only typist on vacation on July 28, two typists will be working on that date.

7.   The answer is choice a. Since Rhonda and Andy will both be on vacation on July 23, only one computer operator will be working on that day.

8.   The answer is choice c. Roger's vacation will begin on July 23.

As we said earlier, the second problem is a bit more complicated. To solve it, we followed the same basic approach that we used for the last problem. Again, we broke the workers down into their job categories, ranked them by seniority, and compared their vacation preferences. If necessary, we moved people's vacation dates ahead. We then filled in their vacation dates on the calendar. You may have preferred to reverse the data, and put the dates the employees worked instead on the calendar. It wouldn't have mattered. Our breakdown looked like this:

SECURITY	SENIORITY		PREFERENCE	ACTUAL
Jack B.	13	years	8/10 - 8/18	8/10 - 8/18
Robert L.	7	years	8/3 - 8/18	8/3 - 8/18
Mike D.	3	years	8/14 - 8/21	8/19 - 8/26
Jane R.	2	years	8/20 - 8/27	8/20 - 8/27

Since two security employees need to be on duty each working day, Mike D.'s vacation will have to be moved to begin 8/19, when Jack and Robert come back.

TYPISTS	SENIORITY		PREFERENCE	ACTUAL
Grace N.	12	years	8/4 - 8/25	8/4 - 8/25
Susan T.	10	years	8/5 - 8/26	8/5 - 8/26
Thomas B.	9	years	8/19 - 8/28	8/19 - 8/28
Barbara L.	4	years	8/7 - 8/21	8/19 - 9/2

Since two typists have to be on duty each working day from 8/11 to 8/18, Barbara L.'s vacation will have to be moved to begin on 8/19.

COMPUTER OPERATORS	SENIORITY		PREFERENCE	ACTUAL
Phyllis P.	11	years	8/5 - 8/20	8/5 - 8/20
Alan R.	8	years	8/12 - 8/26	8/12 - 8/26
Ann N.	7.5 years		8/17 - 8/28	8/21 - 9/1
George W.	6 years		8/3 - 8/14	8/27 - 9/7

Since two computer operators must be on duty each working day, Ann and George's vacation dates will have to be moved. Ann's vacation will have to be moved to 8/21, and George's to 8/27. You might have been tempted to move the first day of George's vacation <u>backwards</u> to let him start his vacation sooner, since it would be closer to his original preference. You can't do this because the regulations state that vacation dates must be moved <u>ahead</u> to the nearest available date.

Our version of the completed calendar can be found on the following page.

9. The answer is choice d. Looking at the table, you can see that Mike, Jane, Grace, Susan, Thomas, Barbara, Alan and Ann will all be on vacation.

10. The answer is choice c. Four workers, Thomas, Barbara, Ann and George, will all be on vacation. This will leave eight people working.

11. The answer is choice b. George will be on vacation on August 27, because his vacation preference is lost due to seniority.

12. The answer is choice c. Ann will be the only employee of the four who is not on vacation on August 19.

13. The answer is choice d. All four typists, Grace, Susan, Thomas and Barbara, will be on vacation on August 19.

14. The answer is choice b. Jack, Robert, Grace, Susan, Phyllis and Alan will all be on vacation on August 17.

15. The answer is choice a. Five workers, Jack, Robert, Grace, Susan and Phyllis, will be on vacation on August 11. That means seven people will be working.

AUGUST

	1	2	3	4	5	6	7
Comp. Typ. Sec.			 Robert	 Grace Robert	Phyl. Grace Susan Robert	Phyl. Grace Susan Robert	Phyl. Grace Susan Robert
	8	9	10	11	12	13	14
Comp. Typ. Sec.	Phyl. Grace Susan Robert	Phyl. Grace Susan Robert	Phyl. Grace Susan Robert Jack	Phyl. Grace Susan Robert Jack	Phyl. Alan Grace Susan Robert Jack	Phyl. Alan Grace Susan Robert Jack	Phyl. Alan Grace Susan Robert Jack
	15	16	17	18	19	20	21
Comp. Typ . Sec.	Phyl. Alan Grace Susan Robert Jack	Phyl. Alan Grace Susan Robert Jack	Phyl. Alan Grace Susan Robert Jack	Phyl. Alan Grace Susan Robert Jack	$Phyl_1$ Alan Grace Susan Tom Barb Mike	Phyl. Alan Grace Susan Tom Barb Mike Jane	Alan Ann Grace Susan Tom Barb Mike Jane
	22	23	24	25	26	27	28
Comp. Typ. Sec.	Alan Ann Grace Susan Tom Barb Mike Jane	Alan Ann Grace Susan Tom Barb Mike Jane	Alan Ann Grace Susan Tom Barb Mike Jane	Alan Ann Grace Susan Tom Barb Mike Jane	Alan Ann Susan Tom Barb Mike Jane	Ann George Tom Barb Jane	Ann George Tom Barb
	29	30	31				
Comp. Typ.	Ann George Barb	Ann George Barb	Ann George Barb				

INVENTORY CONTROL:

1. The answer is choice c. You may have noticed that some of these are trickier than they look. We're told that 27 reams of copier paper were used in the first week, and that a total of 6 reams were used in the second and third weeks. By looking at the table, we know there were initially 42 reams of copier paper. If 27 reams were used in the first week, this would leave 15 reams in the unit. According to the table, copier paper must be reordered when it falls to 15 reams. Reordering gives the unit 20 more reams, which would then bring the total to 35 reams (20 plus the 15 that were left). If 6 reams of copier paper were used in the second and third weeks, then the total in the unit at the beginning of the fourth week was 29 reams (35 - 6 = 29).

2. The answer is choice a. We're told that 20 bottles of copier fluid were used in the first week. Twenty bottles of copier fluid, at 5 bottles to a carton, is 4 cartons of copier fluid. You have to watch out for the unit you're asked to find. We know that 4 cartons were used the first week. If there are 3 cartons left at the beginning of the second week, then there must have been 7 cartons to begin with. (The 4 used plus the 3 left equal 7.) The passage states there was no reordering the first week, and that reordering will not occur unless stated or unless levels fall below the reorder amount. Note how easily you could have been fooled into selecting choice c, if you worked with bottles instead of cartons.

3. The answer is choice a. We're told that the amount of copier fluid at the beginning of the fourth week was double the amount of copier fluid in the unit at the beginning of the first week. From the last question, we know that there were 7 cartons of copier fluid at the beginning of the first week. Two times 7 is 14, 50 we know there were 14 cartons at the beginning of the fourth week. According to the table, there were 3 cartons at the beginning of the second week. We are told that the copier fluid was reordered only once. This reorder adds 15 more cartons to the total available at the beginning of the second week, which was 3. Adding them, we have a total of 18 cartons for weeks two and three. If 14 are left at the beginning of the fourth week, then 4 cartons must have been used during the second and third weeks (18 - 14 = 4).

4. The answer is choice b. We're told that 8 bottles of copier toner were used in the first week. There are 4 bottles to a pack, so 2 packs were used the first week. The table shows that there were 2 packs left at the beginning of the second week. If there were 2 packs left, and 2 packs were used, then there must have originally been 4 packs of copier toner.

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5. The answer is choice d. The table shows that there were 2 packs of copier toner at the beginning of the second week. If the toner was reordered, this would make a total of 12 packs of toner (the original 2 plus the 10 reordered). If 16 bottles (4 packs) are used, then the total of 12 packs minus the 4 packs used would leave 8 packs at the beginning of the fourth week. But we need to find the number of bottles. Sneaky. You can see how you have pay attention to what unit is called for in each question. There are 4 bottles to a pack, 50 8 packs would be 32 bottles.

6. The answer is choice b. The passage states that 40 writing pads, not packs of pads, were used in week one, and that 50 pads were used in week two. This makes a total of 90 pads. There are 12 pads to a pack. At the beginning of week one there were 11 packs of pads. If 40 writing pads were used in week one, then 3 1/3 packs of pads were used. This left 7 2/3 packs of pads. According to the passage, packs of writing pads should not be reordered until the total falls to 4 packs of pads. Fifty more writing pads were used the second week. This brought the total number of pads used to 90, or 7.5 packs of pads. If 7.5 packs are subtracted from the original 11 packs of pads, the unit is left with 3.5 pads of packs during the second week. This is below the 4 pads needed to reorder, so more pads should have been reordered in the second week.

7. The answer is choice c. We're told that the number of packs of writing pads at the beginning of the fifth week is half the number of those left at the beginning of the third week. According to the last question, there were 3.5 packs of writing pads left in the second week, and 10 more packs were reordered. This would leave 13.5 packs of pads. Half of this is 6 and 3/4 packs of pads. The question asks how many pads are left at the beginning of the fifth week. Six and 3/4 packs of pads, at 12 pads to a pack, is 6.75 times 12 -- or 81 pads.

8. The answer is choice a. We know from the table that the unit had 5 reams of typing paper at the beginning of the second week. We are told that there were 12 reams of typing paper in the unit at the beginning of the third week. This means that the unit must have reordered. If they originally had 5 reams, and got 15 more reams from reordering, they would have had a total of 20 reams. If the unit was left with a total of 12 reams at the beginning of the third week, then 8 reams of typing paper must have been used (20 minus 12 equals 8) in the second week.

9. The answer is choice d. We are told that there were twice as many cartons of correction fluid at the beginning of the first week as there were at the beginning of the third week. The table tells us there were 2 cartons at the beginning of the third week, so there must have been 4 cartons (2 times 2) at the beginning of the first week. If they started with 4 cartons at the beginning of the first week, and ended with 2 cartons at the beginning of the third week, they must have used 2 cartons the first and second weeks. Two cartons have 12 bottles per carton, so they must have used a total of 24 bottles.

10. The answer is choice b. We know from the table that there were 2 cartons of correction fluid at the beginning of the third week. There are 12 bottles/cartons so this is a total of 24 bottles. If 14 bottles of correction fluid were used, that left 10 bottles. The supply has fallen below the minimum reorder level of I carton (12 bottles) during this third week, so this is when, according to the rules we've been given, reordering should have taken place.

You can see from the above questions how careful and patient you need to be to answer these questions correctly. If you re not satisfied with how well you answered them, we suggest you do the problems in the "Work Scheduling" section of this booklet, and then redo these questions a week or two later. It can really help.