

Keyboarding Skills

This appendix contains lessons for learning how to *touch type*. Timed practices are also included that will help develop speed and accuracy.

Learning to Touch Type

When touch typing, your hands are positioned on the keyboard so that you can strike any of the keys without looking down at the keyboard. The advantage of this is that your eyes are on the material you are typing. With touch typing, you will be able to type with greater accuracy and speed than you can using the “hunt and peck” method.

Before you begin to type your hands and body need to be in the proper positions. Your hands should be placed lightly on the keyboard with slightly curved fingers. The left pinky is placed on the **A** key and the rest of the left hand on the **SDF** keys. The right pinky is placed on the semicolon (;) key and the rest of the right hand on the **LKJ** keys. The right thumb is placed on the spacebar. With the fingers placed as just described, this is called the “home” position.

Place the chair you are sitting in so that your arms reach out and your elbows are loosely at your side. Sit in a relaxed but upright position with both feet flat on the floor. Maintaining proper posture will help to keep your body from tensing. Try not to slouch or bend over the keyboard.

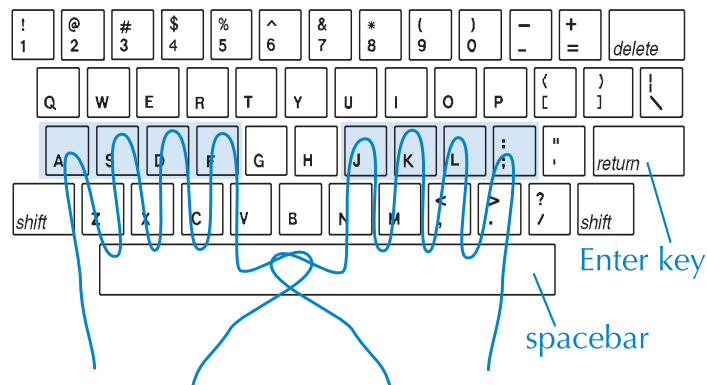
In touch typing, the location of each of the keys on the keyboard needs to be memorized. This is accomplished by learning a few keys at a time in each of the following lessons. Developing a smooth rhythm as you type is important. Strike each of the keys with the same pressure. In the timed practices, you will keep track of how many words per minute you type and the number of mistakes made.

You will need to use a word processor to complete the lessons in this chapter.

Lesson 1 The Home Row: ASDF JKL;

Create a new document. Place your hands on the keyboard in the *home position* or on the *home row* described previously with the left hand on the keys **ASDF** and the right hand on the keys **JKL;**. The right thumb is placed on the spacebar.

Type the following letters and when you finish each line, press the Enter key with your right pinky. The cursor will move down one line and to the left side of the window. Note that the semicolon (;) is normally followed by a space when typing actual material. Do not look at your hands while you type, refer only to the picture of the keyboard below.



Place your fingers on the home row when beginning to type

Practice 1.1

```
1  aaa ;;; aaa ;;; sss lll sss lll ddd kkk ddd kkk fff jjj fjf
2  aaa sss sas asa sss aaa sas aaa sss sas aaa sss sas sss a;a
3  ddd ada ddd daa dss dad dsd ddd sss aaa ads asd asd dad sls
4  sss aaa ddd ddd ssa dad dsd dsa dsa dss daa aaa sss dda dkd
5  fff fff faf fss fss fas fas fad ffd faa fsa ffs fsa fad fjf
6  fss saf fad sfa fss fad fsa sda fad aff fsd sff ffa sss fjf
7  jjj jjj jja jaf jfj jdj jfs jja jad jsf jja jda jaf jjj jfj
8  jad daj fja das saj jjs jsa daf sfj jad faj jjj jad jaa dkd
9  kkk kka kkk kak kjk kss kkj kak ksa ksk kfk kkf kkk kjj kdk
10 kad dak sak adk sak akk kak jak jak dak ask sak kkk kjk ala
11 lll lll lff llk lak las lad lf1 lld lll lsk lf1 lk1 lj1 lal
12 lsl sal fal dsl lsl llf jal all sal lsa fal lll lk1 lal a;a
13 ; ; ; fa; da; sa; da; fj; sa; da; jl; ; ; sa; lad; jak;
14 dad dad lad lad sad sad add add lad ask dad fall fall falls
15 ask ask fad fad ads ads dad lass lass sass sass salad salad
```

Practice 1.2

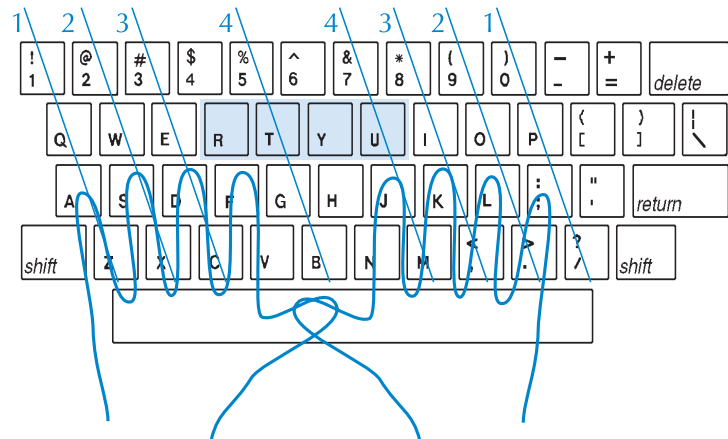
1 ;;; aaa lll sss kkk ddd jjj fff ;a; a;a lsl sls kdk dkd jfj
2 sas saa asa asa dfd fdf ffd dfd das sad sad das las das ad;
3 jjkk kkjj jkjk kjkj jkkj l; l; jkl kjl; dakl kald jakl jakl
4 jjk jjl jj; jaj ksk lal las las kad kad laf laf la; ja; la;
5 aad aas aaf aa; aak aal aa; fad fad dad dad lad lad sad sad
6 dask jljl fafa fajk ddl; jadl lads lads dads dads sads jakl
7 asks asks dads fall lass fads lask fads lads ffjj kklk fkf;
8 sass salad asks; dads jass as hass lass fall alls lads ;gas
9 has; fall aaj k;j sas ask adds sad; jjkl fall alls lads ssl
10 jass dads has all gas adds lass fall alls lads ask as sad;;

Repeat the practices above until you can type the characters without referring to the keyboard diagram.

When you have completed the lesson, you can close the document without saving changes.

Lesson 2 RTYU

In this lesson you will learn the **RTYU** keys.



*Press **R** and **T** with the left hand, and **Y** and **U** with the right*

The letters **RT** are typed using the pointer finger of your left hand and **YU** with the pointer finger of your right hand. Note the lines that show which finger is used to type which keys: "1" for the pinky, "2" for the ring finger, "3" for the index and "4" for the pointer.

From this point on, each lesson will begin with a review of the previous lesson. Before proceeding to the new letters, practice this review several times until you feel comfortable. **Remember to press the Enter key with your right pinky at the end of each line.**

Review

1 aaa ;;; aaa ;;; sss lll sss lll ddd kkk ddd kkk fff jjj fjf
2 aaa sss lll sas asa ddd das kkk jjj lkl fff fjf jfj klk jas
3 ljl kfk ldf klj kjk ljk fsd sda jkl fsd sad sad lad lad fad
4 dada fada sads jass klas fas; dad; fkal dasd jjkk jaka fada
5 asks lads lass daj; jakl kfkf ladf klks adas fjll; dads lads

Practice 2.1

1 fff ffr frf frr frr rrr frr frf rrr frf frr rrr fff frf rrr
2 fff fft ftf ftt ftt ttt ttt ftf ttf ftf ttt ttt fff tff ftt
3 frt frt frt frt fra rta rat rat jar jar far far tar tar far
4 jjj jju juj juu juj jju juj juj uuu juu juj jjj uuu juj juu
5 jjj jyy jyj jyy jyy yyy jyj jyy jyy jyj yyy jyy jyj jyj yyy
6 juu juy jju juy jyu juy jyu jyu jyy juu uuu yyy uyu yuy yuy
7 fuju furt fryt jutyr frt sats fats jakd dar; rats rats sats
8 krad jury safy last last jury tars tars star star duty duty
9 yard jury duty fast just dark dust data klas jars furs yard
10 ruts says lass tar; hats sats rats yard dull tart last dad;
11 tars tar; hats sats rats yard dull tart last furt fryt jutyr
12 yard duty fast lads sad; ruts tar; hats sats dull tart last
13 dull tart last dad; ruts says lass tar; hats sats rats yard
14 kart dust sass furs just task task fast rats yard dull tart
15 asks just last fur dark ruts says lass tar; tart tars darts

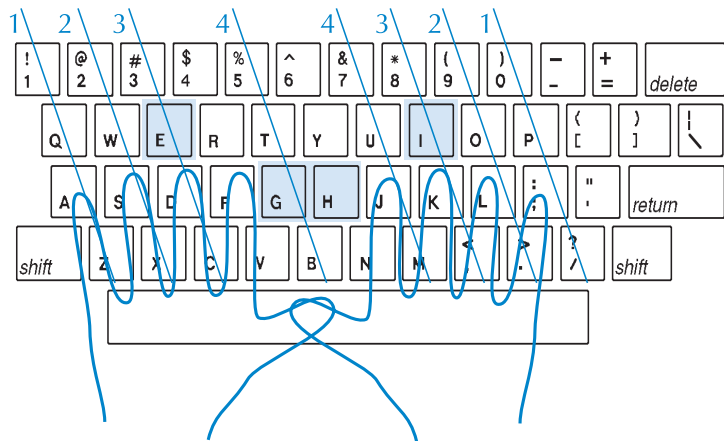
Practice 2.2

1 juts furs dust suds dart rats sats just just task task fast
2 rats ruts daft rays sats lark jars salt suds suds lads furs
3 yard duty fast lads sad; lass tars hats data tart last dust
4 jar ask fry lad fat dad add sad rut dad add say say far tar
5 dart dull rut; ruts furs asks lass rust just fall star rays
6 dusk last fast lads kart dust sass furs furs just task salt
7 dull darts suds jars lark dusts rust data data rats salt as
8 asks just last fur dark dart says jury task tart tars darts
9 tar rat sally sally last yard dark try; fats lark dark data
10 ruts rudy trudy rust dart just salt dark furs say; dust tad

Repeat the practices above until you can type the keys without referring to the keyboard diagram.

Lesson 3 E G H I

In this lesson you will learn the keys **EGHI**. Rather than pressing the Enter key at the end of each line we are now going to allow the computer to determine where the end of each line is. If there is not sufficient room for a word at the end of a line the word will automatically be moved to the beginning of the next line in a process called *word wrap*. Where your computer breaks a line will differ from what is shown in this text since the break is determined by where the margin is set. Just keep typing the lines on the next page without ever pressing Enter:



Press the **E** and **G** with the left hand,
and the **H** and **I** with the right

Review

1 fff frr frf frf fft ftf ftt ftf ttt juu juj jju jju juu juj
2 jyy jyy jyj jyj fuy fuy frt fju juy jyy ftt frr jyy juy juy
3 asks jury yard jars arts judy lark rust dust just fast dark
4 trudy dark sally yard daffy salt rat tar fur rays tall fall
5 darts fats sat; us all task lad; salt dust trust last fault

Practice 3.1

1 ddd ded ded dee dde ded ded ded ddd ded dee dee dee eee ded
2 fff fgf fgf fgg fgf fgf fgg fgf fgg ggg fgg fgf fgg ggg fgf
3 fgd deg fed def fgd deg fed def deg def feg dfe eee ggg ege
4 jjj jhj jhj jhh jhj jjj hhh jhj jhh jhj jhj jjh jjh hhh jhj
5 kkk kik kik kik kii kii kik iii iii kii kik kii kii iii kik
6 jhki jhik kiik kijh kijh khij jhik kihj jhki jhki jhki jjkk
7 did tug lad the she hid set age red red did ask let age the
8 did lug tug hit age yet ask rut elk gas she she did did use
9 rake dirt sake high dirt rail jail kiss jilt hale side said
10 saddle kettle us huddle jerry jail dirt yet little rut side
11 ask rail; kiss jilt hale said elks gas hers juggle rid teds
12 the fights hight fester justify sights satisfy deride kitty
13 hale aisle federal drill salt kitty kite hats dred egg said
14 did fight justify sight little dirt yet little she kit uses
15 hight sight fester deride just sight father fifth kettle a;

Practice 3.2

1 did lag elk yes age let rug kiss rake that said; sail hills
2 her; dig a rut age is hill high hear set sail satisfy there
3 erase refer defer agree reset sir differ legal degrees tell
4 satisfy father egret fifes fifth fly leg hedge sell his her
5 gail harsh heart thigh yalta light irish alight; ideal star
6 last jelly judge high kelly jail; kay jest hail to thee jet
7 halts the digs highest eight three furs halt judge judge as
8 lilly ladle legal aisle drill salt the these as; highest to
9 drudge tusk halt fudge last jest hail has gall deak salt as
10 hark yak said sail the less; fastest highest edge all halts

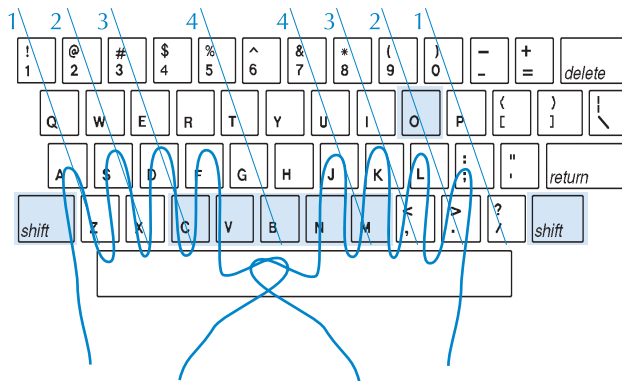
Timed Practice 3.3

The next few lessons end with a timed practice which allows you to check your speed. Type for 1 minute and then calculate your speed in words per minute by counting the words typed. Each line contains the equivalent of 12 words (one word is five typed characters). Words in a partial line are calculated using the scale below the lines.

1 did yes let rug age rut set ted ask elk yet dad sad lads hit 12
2 sake rail jail dirt side said jails kiss rake that tug; dull 24
3 jilt just fads fife flag fall digs ages rail tell star kills 36
4 fight sight deride just father fifth kettle jelly judge ask; 48
1 2 3 4 5 6 7 8 9 | 1 2

Lesson 4 CVB MNO

In this lesson the letters **CVB MNO** are added as well as capital letters. Use the finger lines in the diagram to determine which finger is used to type the new letters. To type capital letters use either your left or right pinky to depress one of the Shift keys and type the letter. If the capital letter is typed with the right hand the left pinky is used to depress the Shift key. If it is typed with the left hand the right pinky is used. As in Lesson 3, allow the computer to determine where the end of each line is by not pressing the Enter key.



Press the C, V, and B keys with the left hand, and the M, N, and O keys with the right. Use the pinky to press Shift.

Review

1 ded eee fgf ggg jhj hhh kik iii fge fgf jhj fgh jhi dek deg
 2 digs ruts ages hill high sats fads sake rail dirt side said
 3 all irish thigh gale takes legal aisle salt eight that flag
 4 hail thee; fastest gail sledge haste tasks jet get hail art

Practice 4.1

1 ddd dcd dcc dcd ddc dcc dcc dcc ccc dcc dcd ccc dcc dcc dcd
 2 fff fvf fvf fvv fvv vvv fvv fvf vvv fvf fvv fvv fvv fvf
 3 fff fbf fbf fbb ffb bbb fbb fbf fbb bbb fbf fbb fbb bbb fbf
 4 dcv dcv cfv fvb fvb fbv fbf fvv vdc bdc bbd ccc vvv bbb bvc
 5 jjj jmj jmj jmm jjm mmm jmm jmj jmm mmm mmm jmm jmj jmm jmj
 6 jjj jnj jnj jnn jnn nnn jnn jnj jnj nnn jnn jnj jnj jnn jnj
 7 lll lol lol loo ooo loo loo lol lol ooo loo lol lol loo lol
 8 jmn jnm jnm jml jno loj ojn ooj jmn jno loj mno mno bcv bcv
 9 Bill odd nod boy Bob night vent Sam avoids mad bite buried;
 10 dock mint convert common bimini money none bongo volume vat
 11 convince civic conic occur yucca bulb blurb member mayor to
 12 ninth linen noun announce mono minds vocation victim vacate
 13 kitty Gerry highly Eighty saddle kettle monies Tony convert
 14 Jimmy Miami Thomas Fast Kludge Doll Rest Ernest Joan Laurie
 15 Satisfy small Father; fight federal Jail tuggle yet Law Jim

Practice 4.2

1 Lara Nina monkey said Gray is art color Has Harry come home
2 Janet will not be at school today It is too late to make up
3 Let us make haste before school starts This is not the time
4 Should you be very good or not This is the universal Return
5 George Ferrit was raised in Iowa John Smith in Rhode Island
6 You need to make some money; to be able to go to the movies
7 Bob Cindy Virginia Monica Nina Ollie Barbara Veronica Bruce
8 This is the time for to be verbal Robert is a very nice guy
9 Miami New York Chicago Cleveland Boston Houston Dallas Dent
10 The gain made by becoming a good typist may be considerable

Timed Practice 4.3

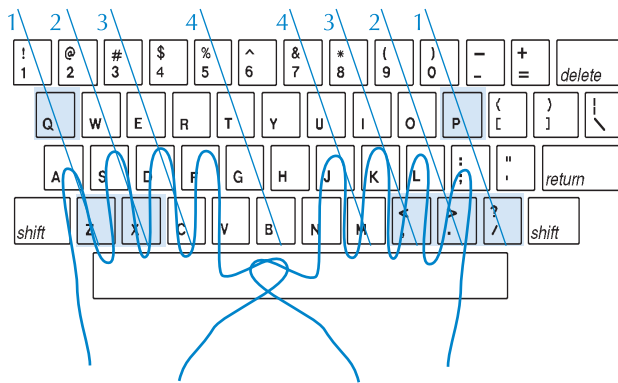
Type for 1 minute and then calculate your speed in words per minute by counting the words typed. Each line contains 12 words. The words in a partial line are calculated using the scale below the lines.

1 Come to my house if you need to sell a vacuum cleaner today; 12
2 This is not a good time to help you with cooking the turkeys 24
3 Bill Crane is the secretary at our local offices of the club 36
4 Virginia is a beautiful state; Its capitol city is Richmond 48

1 2 3 4 5 6 7 8 9 | 1 2

Lesson 5 WQZX P, . ?

In this lesson the letters **WQZX P** are added along with the comma (,), period (.), and question mark (?). The question mark is typed by pressing the left Shift key with the left pinky and the ? key with the right. Note the finger lines for determining which finger to use for each key.



Press the **Q**, **Z**, and **X** keys with the left hand, and the **P**, comma, period, and question mark with the right

Review

1 dcdc fvfv fbfb jmmj jnjn Jmnj jnlo loon fvcd Fcvf jmnl Lojn
 2 very task dark volt None vast many salt belt bolt none cold
 3 Verbal Bimini Bahamas vacuum Nina member announce mist mold
 4 members linen Venice Bob Vermont San Antonio convert Melvin

Practice 5.1

1 sss sws sww sww sws sww www sws ssw sww sws sws www sws sws
 2 aaa aqa aqa aqq aqq qqq aaq aqa aqq aqq aqq aqa qqq aqa aqa
 3 aaa aza azz azz zzz azz azz aza azz azz azz azz zzz azz aza
 4 ;;p ;;p ;p; ;p; ;p; pp; pp; ll. ll. l.l lo. lo. la. ll. l.l
 5 sss sxs sxx sxx xxx sxs sxx sxs xxx xxx ssx sxx sxs sxx sxs
 6 kk, kk, kk, k, kkk, k, k, kk, ; ? ; ? ; ? ; ; ? ; ? ; ? la?
 7 aqua, zap? Zeus, want; aqua. quart, extra, quilt. Zoe quill
 8 quick query equip quilt quits quote Queen quality paper top
 9 apple panel support append popular profess quota quail pops
 10 Rudy Penn Paul, plastics proof quart quit? Walter Thomas at
 11 Aztec zero, unzip. fuzzy gauze sizes Inez epitomize Prizes?
 12 exact axiom vexed Felix, Exxon. Xerox, mixed index exciting
 13 dozen Zeke. Brazil, William, hertz gauze dozes? lazy Zurich
 14 zonal zooms seize quilt quick prime power opera? allow. Zak
 15 Oprah robot Boone, Texas, Portland, Zeus Zola extremely fax

Practice 5.2

- 1 Jake quit his jobs. What do you want? Exit from the west.
- 2 Zinc is not really that pretty. Would you please be quiet?
- 3 I would like to go to Zurich, Brazil, Texas and Queensland.
- 4 Robert Roodez is a fine person whose qualities are special.
- 5 In which Texas cities would you like to stay at Quality Inn?
- 6 The Aztecs had an advanced civilization which disappeared.
- 7 What equipment would you like to have added to a gymnasium?
- 8 I have visited Washington, Texas, Arizona, Utah, Vermont.
- 9 Inez Zola has the qualities that will make her quite famous.
- 10 Do you have zebras, polar bears, and turtles at your zoo?

Timed Practice 5.3

Type for 1 minute and then calculate your speed in words per minute by counting the words typed. Each line contains 12 words. The words in a partial line are calculated using the scale below the lines. To test your accuracy count the number of letters and spaces missed.

- 1 There are qualities which are required to become successful. 12
 - 2 The following will come to the front; Bob, Zelda, and Betty. 24
 - 3 Would you please; ask your parents to allow you to visit me? 36
 - 4 Twelve quiet students sat on the wall waiting for the twins. 48
- 1 2 3 4 5 6 7 8 9 | 1 2

Lesson 6 :"/

In this lesson the colon (:), quote marks ("), and slash or division sign (/) are added. The colon is typed by pressing the left Shift key with the left pinky and typing the key containing the semicolon and colon. A space always follows a colon. Quote marks are typed by pressing the left Shift key with the left pinky and the key to the right of the colon key using the right pinky. The slash is typed using the right pinky.

Review

1 dozen unzip zesty gauze amaze wants excite explain exhausts
2 prop Perhaps? personal, profit, operator. Quality qualify
3 equip quest quicken, proud supports puppy Zanadu? Exciting
4 quit extra Paul Zak? Extra qualify pest apple quart quick.

Practice 6.1

1 : : "abcd" l: "What is that?" "This is a quote from Jane."
2 "John is the best." The team is: Zeke, Jake, Rob and Quent.
3 ; / / ; / ; abc/de x/y; words/minute nt/m miles/hr, xyz/abc
4 These states are in the west: Utah, Oregon, and California.
5 What person said: "We have nothing to fear but fear itself"?

Lesson 7

The two practices in this lesson are *timed practices*. In the first, type for one minute and then calculate your speed in words per minute by counting the words typed. Each line contains 12 words. The words in a partial line are calculated using the scale below the lines. To test your accuracy, count the number of letters and spaces missed. Record both your speed in words per minute and the number of errors per minute. Repeat the practice a few times recording the results of each attempt. Your speed and accuracy should improve each time. Note the specific letters which appear as errors and repeat the lesson for that letter. For example, if you often type the letter R instead of T by mistake, go back and repeat Lesson 2. Note that this material is fairly difficult; you should perform all the previous lessons before attempting this one.

Timed Practice 7.1

1 dale rail flight word, solve draft general; writers rough at 12
2 Important: work orders going ahead; instead rise part, taken 24
3 gift week disaster creates advantage been skill oral success 36
4 sharpen your smile coal miners desire: insure achieve smiles 48
5 Press exit Zack; suspend flowers: beginning strokes reunite, 60
6 carriage blooms crowd works quite document fashion computer: 72
7 having options print transfer undo; Marcia, Melvin, Samantha 84

1 2 3 4 5 6 7 8 9 | 1 2

Timed Practice 7.2

The **Tab** key is located on the upper left of the keyboard, next to the Q key. Rather than using spaces, Tab is used to indent paragraphs and to begin lines which do not start at the left margin. In the practices below, you will press Tab once with the left pinky to indent each paragraph.

In this practice type for five minutes and then calculate your speed in words per minute by counting the words typed and dividing by 5. The total of words is given at the end of each line. Test your accuracy by counting the number of letters and spaces missed. Repeat the practice typing for ten minutes and then calculate your speed and accuracy. Repeat this practice several times, over several days. You should note an increase in both your speed and your accuracy.

1 Many of the advances made by science and technology are 12
 dependent upon the ability to perform complex mathematical 23
 calculations and to process large amounts of data. It is 34
 therefore not surprising that for thousands of years 44
 mathematicians, scientists and business people have 54
 searched for "computing" machines that could perform 65
 calculations and analyze data quickly and accurately. 76

2 As civilizations began to develop, they created both 87
 written languages and number systems. These number systems 99
 were not originally meant to be used in mathematical 109
 calculations, but rather were designed to record 119
 measurements. Roman numerals are a good example of this. 130
 Few of us would want to carry out even the simplest 140
 arithmetic operations using Roman numerals. How then were 151
 calculations performed thousands of years ago? 162

3 Calculations were carried out with a device known as 173
 an abacus which was used in ancient Babylon, China and 186
 Europe until the late middle-ages. Many parts of the 196
 world, especially in the Orient, still make use of the 207
 abacus. The abacus works by sliding beads back and 217
 forth on a frame with the beads on the top of the frame 228
 representing fives and on the bottom ones. After a 239
 calculation is made the result is written down. 249

1 2 3 4 5 6 7 8 9 | 1 2

Lesson 8

In this lesson you will make use of the top row of keys that contains both numbers and symbols. Note which finger is used to press each key. The right Shift key is used to type the symbols at the top of the keys 1 through 5 and the left Shift key for the symbols on the top of keys 6 through =.

Practice 8.1

1 aqa aq1 aq1 aq1 ala ala a11 sws sw2 sw2 sw2 s2s s2s s22 ss2
2 ded de3 de3 de3 d3d d3d d33 de3 frf fr4 fr4 f4f f4f ff4 fr4
3 fr5 fr5 fr5 f5f f5f f55 ff5 juj ju7 ju7 ju7 j7j j7j ju7 j77
4 jyj jy6 jy6 jy6 j6j j6j jy6 j66 kik ki8 ki8 k8k k8k ki8 k88
5 lol lo9 lo9 l9l l9l lo9 l99 ;p; ;p0 ;p0 ;p0 ;0; ;0; ;;0 ;p0
6 aq1! aq1! aq1! aq!! sw2@ sw2@ s2s@ Sw@@ s@@s de3# de3# d#3d
7 fr4\$ fr4\$ fr\$\$ fr\$f f\$4r fr5% fr5% f5%% f5%5 f%f% jy6^ jy6^
8 ju7& ju7& ju7& j&j& ju&j ki8* ki8* k**k k*8* k8*8 lo9(lo9(
9 L(990); : L(; 0) ;)0)) (9923) : ; 00) 19(00) ; - - __ ;
10 ; + +567 - 342 =\$45.60 + ; " ' ;+ ; + = - ; ___ -- +1895.00
11 \$435.00; = 389* (873) &23 \$35.89@ 380.23! 89 + 78 = \$382.00
12 Mary has bought a dress that costs \$145.67 plus 6.0(%) tax.
13 (A) 3^2 = 9 & \$12@ for 5 items = \$60.00. 89 * 34 = 3026 47%
14 If I win the Florida \$10,000,000.00 lottery I must pay tax.
15 Jack & Jill went up the 3,450 m hill to fetch 12# of water.
16 23 & 79 are odd numbers! (34 + 78) / (245 * 12.8) = 0.00035

Timed Practice 8.2

In this practice type for five minutes and then calculate your speed in words per minute by counting the words typed and dividing by 5. The total of words is given at the end of each line. The words in a partial line are calculated using the scale below the lines. To test your accuracy count the number of letters and spaces missed.

- 1 Hortense Bargain has decided to reduce the price of 11
stock items #3485 (paint), #7431 (electric saws) and #2945 23
(lawn furniture) by 45%. The new prices will be \$38.50@, 35
\$72.95@ and \$14.98@. 39
- 2 Ivy University is having a book fair and charging the 51
following for books and supplies: pens \$0.45@, note books 62
\$3.78@, and boxes of paper clips \$0.67@. The text "A Guide 74
to Microsoft Office Professional" is specially priced 85
with a 10% reduction (plus 6% sales tax). The stock number 97
of this text is #015-7 (for paperback) and #016-5 108
(hardcover). Henri Camri's new novel "Old Houses in New 119
Jersey" is specially priced at \$12.45 after a 25% discount. 131
- 3 Please be advised of the addition of the following 142
courses to the Ivy University catalog: #126 Advanced 153
Computing (2 credits), #365 Very Advanced Computing (7 164
credits), #782 Computing for the Exceptionally Intelligent 176
(12 credits). The tuition for each course is \$45.00@. 187
What a bargain! 190
- 1 2 3 4 5 6 7 8 9 | 1 2

Lesson 9

In this lesson type for five minutes and then calculate your speed in words per minute by counting the words typed and dividing by 5. The total of words is given at the end of each line. The words in a partial line are calculated using the scale below the lines. To test your accuracy count the number of letters and spaces missed. Repeat the practice typing for ten minutes and then calculating your speed and accuracy.

1 One of the most important advances made in computing 11
has been in the field of "telecommunications." By 21
telecommunications we mean the sending of computer data 32
over telephone lines. To do this an additional piece of 43
hardware called a "modem" is required to translate the 54
binary data of the computer into waves which can then be 65
transmitted over phone lines. To receive data a modem 76
must also have the capability of translating the waves back 88
into binary form. 92

2 With a modem a microcomputer is capable of transmitting 104
and receiving data between any two locations connected 115
by telephone lines. The rate at which the data is sent 126
over the phone lines is measured in bits per second 136
(bps), where eight bits are equivalent to one character. 147
Older modems transmit at the rate 28800, 33600, and 157
56600 bits per second. However, current modems are being 168
developed with the capability of communicating at even 179
higher speeds. 182

3 In a recent newspaper article the Internal Revenue 193
Service (IRS) defined artificial intelligence as "the 204
science of making machines do things that would require 215
intelligence if done by man." As an example, there are 226
currently computers which can play chess so well that they 238
can beat all but the best players. Universities actually 250
challenge each other's computers to play chess to determine 262
which has the best chess playing program. Are these 272
computers really intelligent? Most computer scientists 283
would say no. They are simply programmed to make a series 295
of decisions in response to the moves made by their 305
opponents. It is merely their speed and ability to access 317
huge amounts of stored data which make them appear to be 329
intelligent. 331

1 2 3 4 5 6 7 8 9 | 1 2

