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ANSWERS TO EVEN-NUMBERED EXERCISES

2. Which command moves the cursor to the end of the current paragraph? Can you use this command to skip through the buffer in one-paragraph steps?

The `META-}` command moves the cursor to the end of the current paragraph. You can use it repeatedly to move through the buffer by paragraphs.

4. After you have been working on a paragraph for a while, most likely some lines will have become too short and others too long. Is there a command to “neaten up” the paragraph without rebreaking all the lines by hand?

You can use `META-x fill-paragraph`. Alternatively, you can give the command `META-x mark-paragraph` (or `META-h`) while the cursor is on the paragraph you want to reformat, and then give the command `META-x fill-region`.

6. How would you reverse the order of two paragraphs?

With the cursor on the first paragraph, use `META-h` to define the paragraph as Region, kill Region with `META-x kill-paragraph`, use `META-}` to move the cursor to the end of the second paragraph, and use `CONTROL-Y` to yank the killed paragraph.

8. Imagine that you saw a Usenet posting with something particularly funny in it and saved the posting to a file. How would you incorporate this file into your own buffer? What if you wanted only a couple of paragraphs? How would you add `>` to the beginning of each included line?

To read a file into the current buffer, move the cursor to where you want to add the file and give the command `CONTROL-x i` (insert-file).

There are several ways to add only a few paragraphs from a file: You can read the entire file and delete the parts you do not want. Alternatively, you

can read the file into its own buffer with `CONTROL-X CONTROL-F`, kill the part you want, go back to the original buffer with `CONTROL-X b` (switch-to-buffer), and yank the killed text with `CONTROL-Y`.

To place a greater-than sign followed by a SPACE at the start of each line of the new text, place the cursor at the beginning of the new text, give the command `META-x query-replace-regexp ^RETURN >SPACE RETURN`, and respond with SPACE to each prompt until you get to the end of the new text; then respond with RETURN.

10. Assume that your buffer contains the C code shown here, with the Major mode set for C and the cursor positioned at the end of the **while** line as shown by the black square:

```
/*
 * Copy string s2 to s1.  s1 must be large enough
 * return s1
 */
char *
strcpy(s1, s2)
register char *s1, *s2;
{
    register char *os1;

    os1 = s1;
    while (*s1++ = *s2++)
        ;
    return(os1);
}

/* Copy source into dest, stopping after '\0' is copied, and
   return a pointer to the '\0' at the end of dest.  Then our caller
   can concatenate to the dest string without another strlen call. */
char *
stpcpy (dest, source)
char *dest;
char *source;
{
    while ((*dest++ = *source++) != '\0') ■
        ; /* void loop body */
    return (dest - 1);
}
```

- a. Which command moves the cursor to the opening brace of **strcpy**? Which command moves the cursor past the closing brace? Can you use these commands to skip through the buffer in one-procedure steps?

With the cursor at the start of the file, give the command `CONTROL-META-e` to move the cursor past the closing brace of **strcpy**; `CONTROL-META-a` moves it back to the opening brace. You can use these commands to skip from procedure to procedure.

- b. Assume the cursor is just past the closing parenthesis of the **while** condition. How do you move to the matching opening parenthesis? How do you move back to the matching close parenthesis again? Does the same command set work for matched `[]` and `{}`? How does this differ from the vim `%` command?

`CONTROL-META-b` moves backward over an expression and `CONTROL-META-f` moves forward over an expression. The expression can be delimited by `()`, `[]`, or `{}`.

The vim `%` command requires that you position the cursor on the same line as, and on or to the left of, the closing element of the expression. Then `%` jumps between the opening and closing elements.

- c. One procedure is indented in the Berkeley indentation style; the other is indented in the GNU style. Which command reindents a line in accordance with the current indentation style you have set up? How would you reindent an entire procedure?

Press `TAB` while the cursor is positioned anywhere on a line to reindent the line to the current indentation style. Position the cursor before a pair of matched braces and press `CONTROL-META-q` to reindent the lines within the braces to the current style.

- d. Suppose that you want to write five string procedures and intend to use **strcpy** as a starting point for further editing. How would you make five copies of the **strcpy** procedure?

Move the cursor to the beginning of the word **strcpy** and press `CONTROL-SPACE` to set Mark. Move the cursor to the line past the closing brace and press `META-w` to copy the Region nondestructively to the Kill Ring. Finally, press `CONTROL-Y` five times to yank five copies of the killed Region into the Work buffer.

- e. How would you compile the code without leaving emacs?

After saving the buffer, give the command `META-x compile`. You will be prompted for a command; respond with the command to compile the file you are working on. The output of the compilation appears in a buffer named ***compilation***.