Section III

24) a) — The ever increasing power of computer hardware, making hardware faster and more powerful

- The development of GUI

- The development of asembler language that has made it easier for ~~the~~ programers to design software.
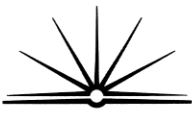
-- Development of silicon based transisters

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b) -miniturisation of micro chips
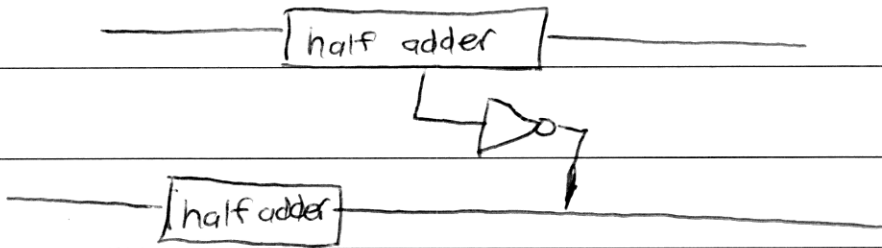
- development of silicon/germanium based transisters.

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PTO

25) a) i)

A	B	C	S
0	1	0	1
1	0	0	0
1	0	0	0
1	1	1	1

ii)

b) * floating point sels for instructions

   * Integer representations can only be calculated
   or stored.

c) i) the first packet is added with the second
   packet and then divided by 13 and then compared
   against the third packet to ensure the
   corect transmiton of the signal.

11)   0 1 0 1 1 0 0 1 0 1   +

0 1 1 0 1 0 0 1 1 1
—————————————————————
1 0 0 0 0 0 1 0 0 0

$13 \div 2 = 6 \ r \ 1$

$6 \div 2 = 3 \ r \ 0$

$3 \div 2 = 1 \ r \ 1$ $13_{10} = 1101$

$1 \div 2 = 0 \ r \ 1$

r =   x x x 1 1 0 0 0
       _____
1101) 1 0 0 0 0 0 1 0 0 0
        1 1 0 1
        —————
        0 1 0 1 0
          1 1 0 1
          ————
          0 1 1 1 0
            1 1 0 1
            ————
            0 0 1 1 1 0
                1 1 0 1
                ————
                0 0 1 1 0 0
                    1 1 0 1
                    ————
                    0 0 0 1

02WB4
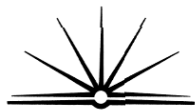
iii)   Begin   Move Toy

Imput   data   from   ~~data~~ reciever

If   data   length = 13

continue

endif.

if   'x'   at   begning   of 1st packet   = 0   then

move   ~~turn~~   ~~output~~   output   left

else

~~right~~   right

~~endend~~ end if

if   " ~~xy~~ y"   at   the   begng   of   2nd packet

= 0   then

move   imput   ~~~~   down

else

up

end if

end.