

"

2005

"

4-3

”

”

2004

30

▪

▪

▪

▪

▪

▪

▪

▪

▪

⋮

⋮

▪

⋮

▪

⋮

▪

⋮

▪

⋮

▪

▪

▪

⋮

▪

▪

▪

⋮

⋮

▪

—

—

▪

2017

94

⋮

■

⋮

■

⋮

■

⋮

■

■

■

■

■

■

▪

2003

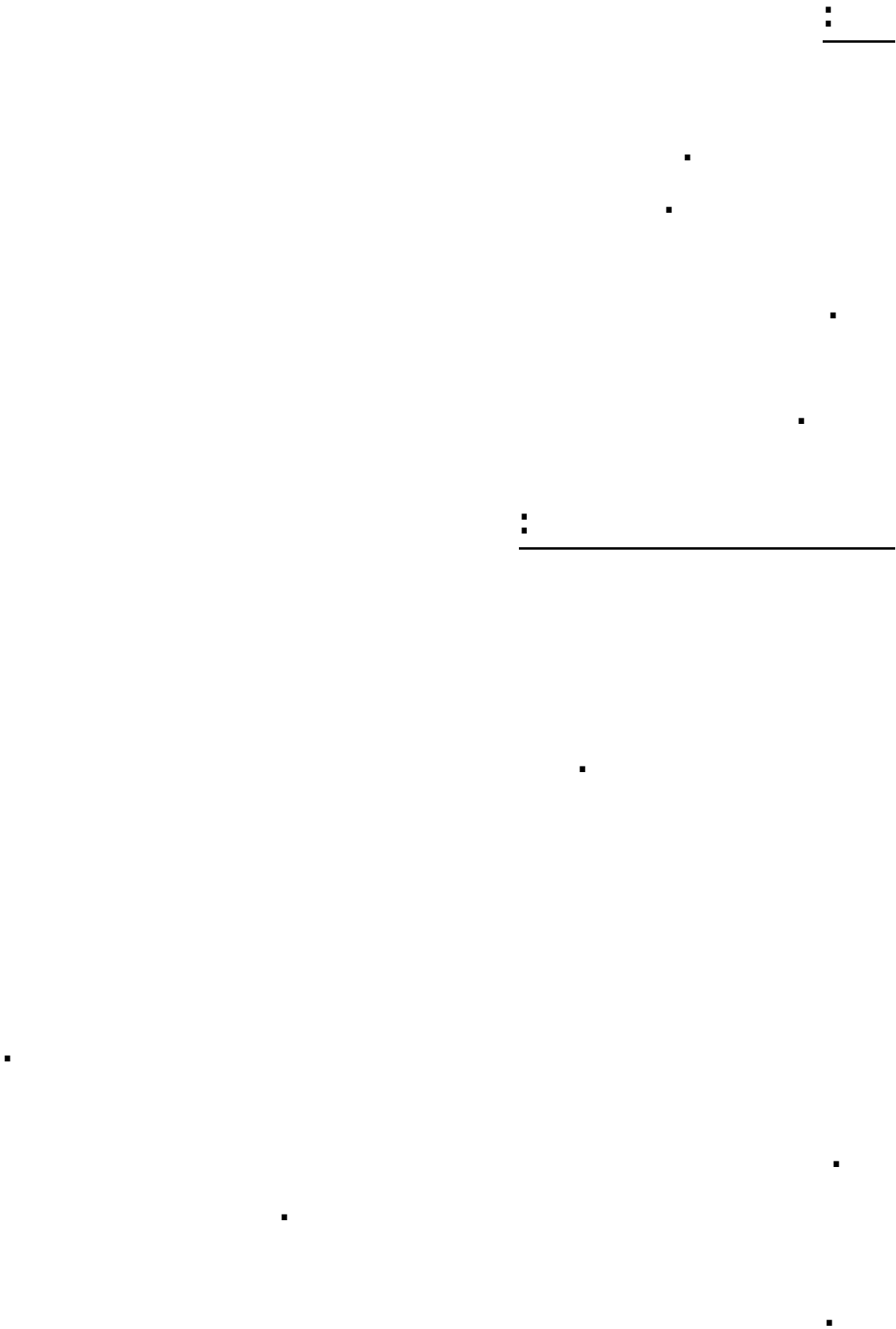
▪

▪

▪

▪





.

6 4

%13

.

.

.

:

:

:

:

:

:

.

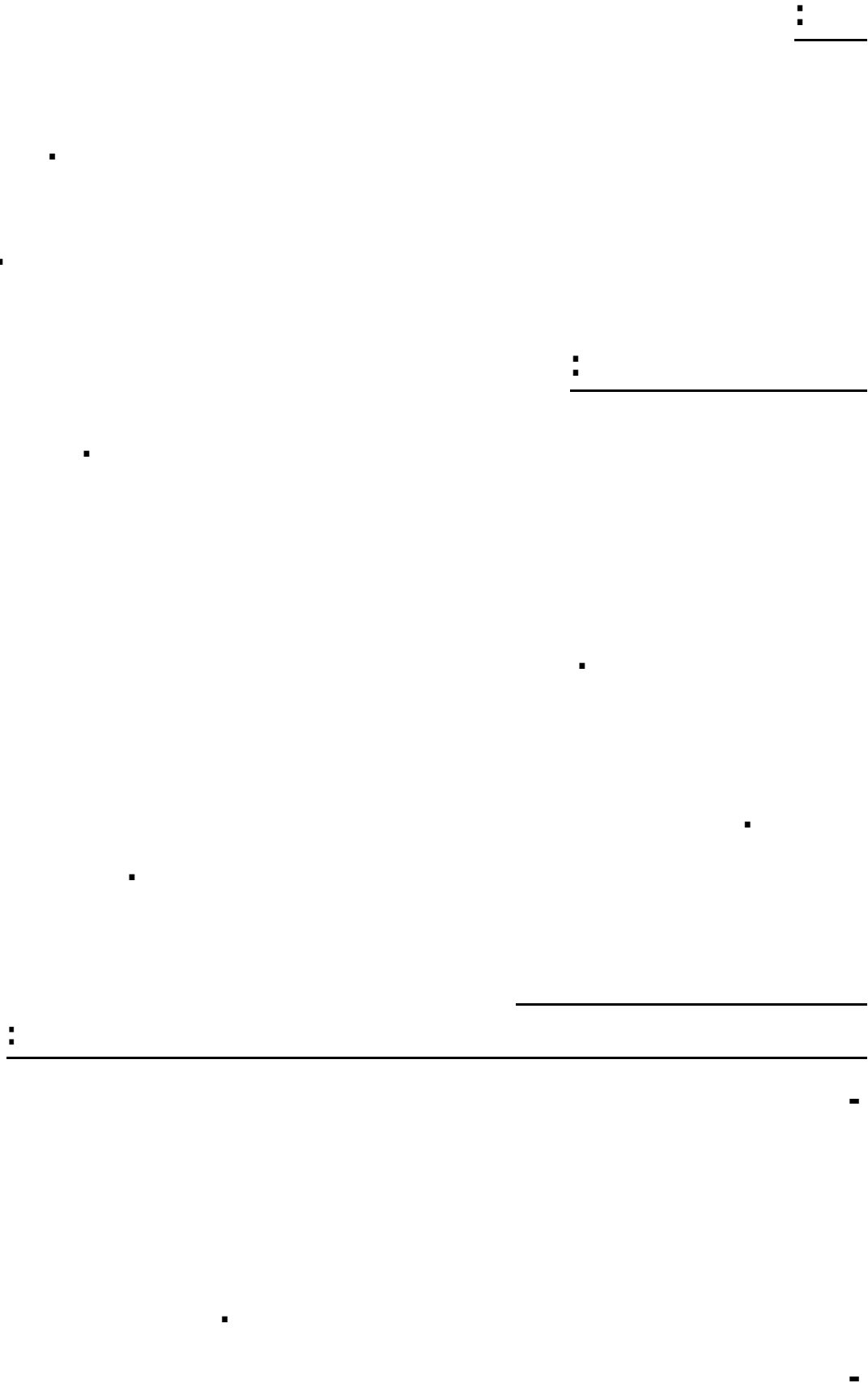


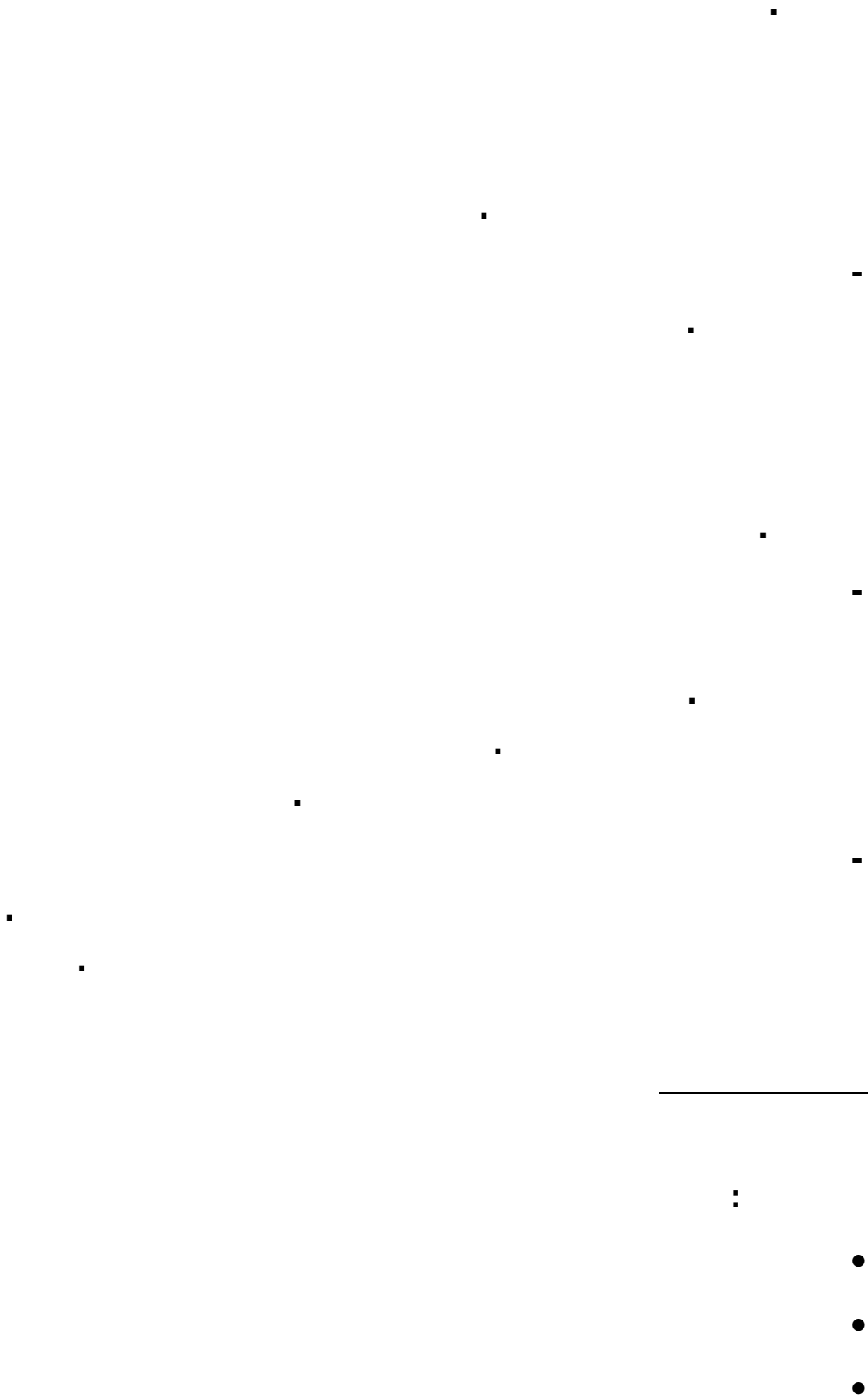
6-4
%13
%100
6-4

()



()





.

:

.

.

:

.

35

25

.

.

:

()

.

⋮

⋮

▪

▪

⋮

▪

▪

⋮

▪

▪

▪

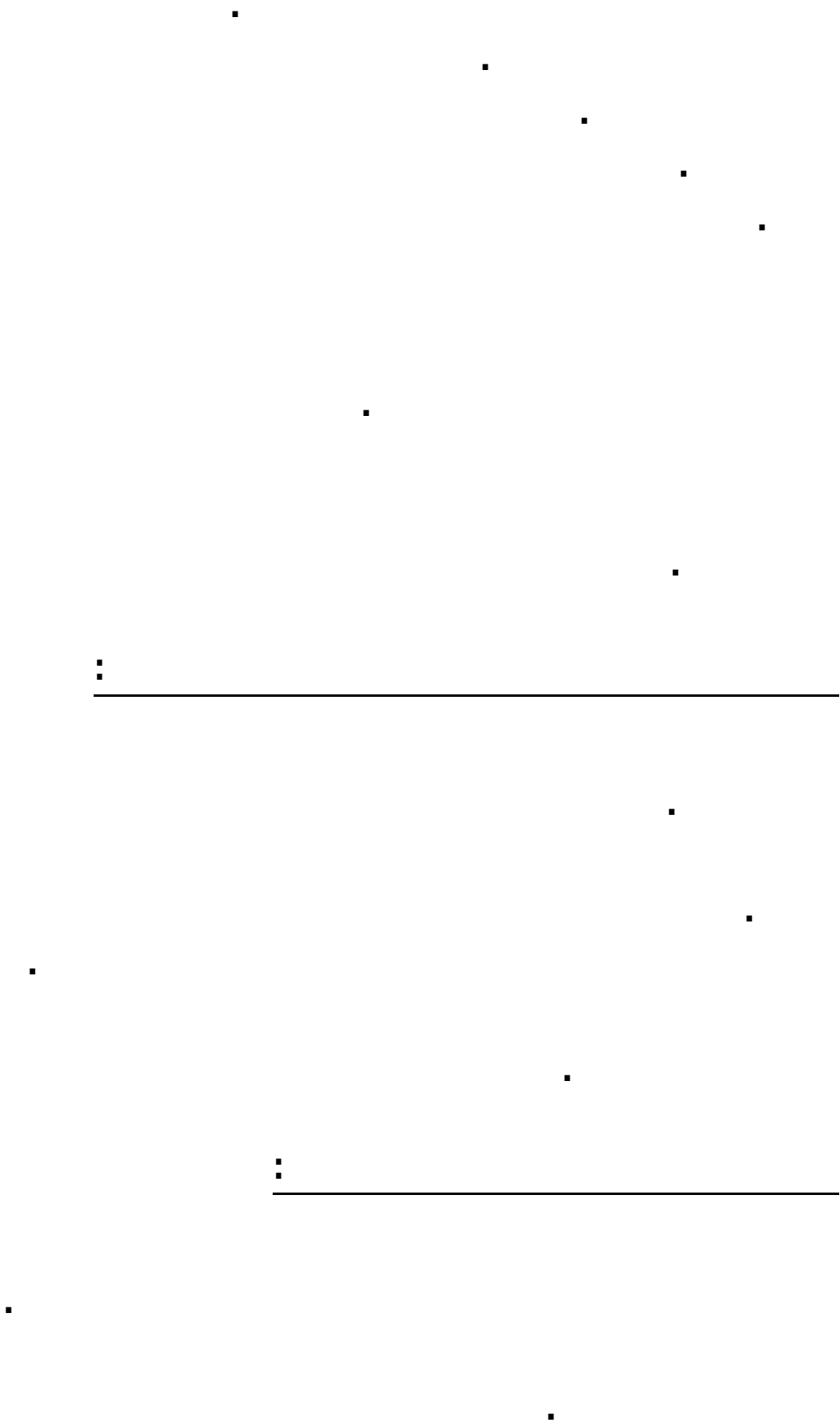
⋮

⋮

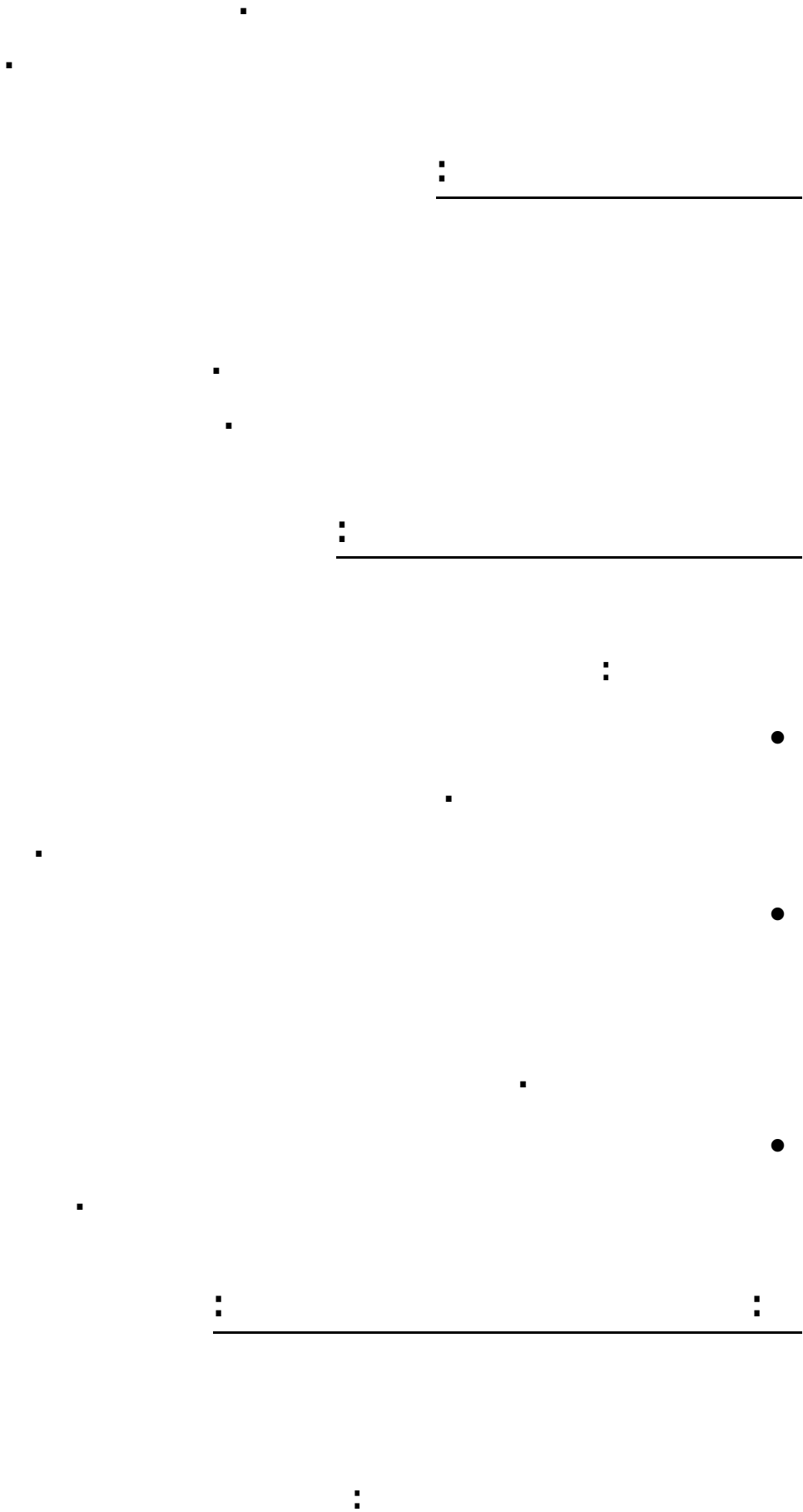
▪

⋮

▪







.1

.

.2

.

.3

.

.4

.

.5

.

.6

.

⋮



•

.

.

.

•

.

.

⋮

▪

—

—

▪

▪

⋮

⋮

⋮

⋮

—

▪

▪

—

▪

—

▪

▪

▪

▪

-
-

$$\cdot \left(\right)$$

□
□

■

■

15

■

■

■

/

.

.

.

.

:

:

:

:

:

:

.

.

()

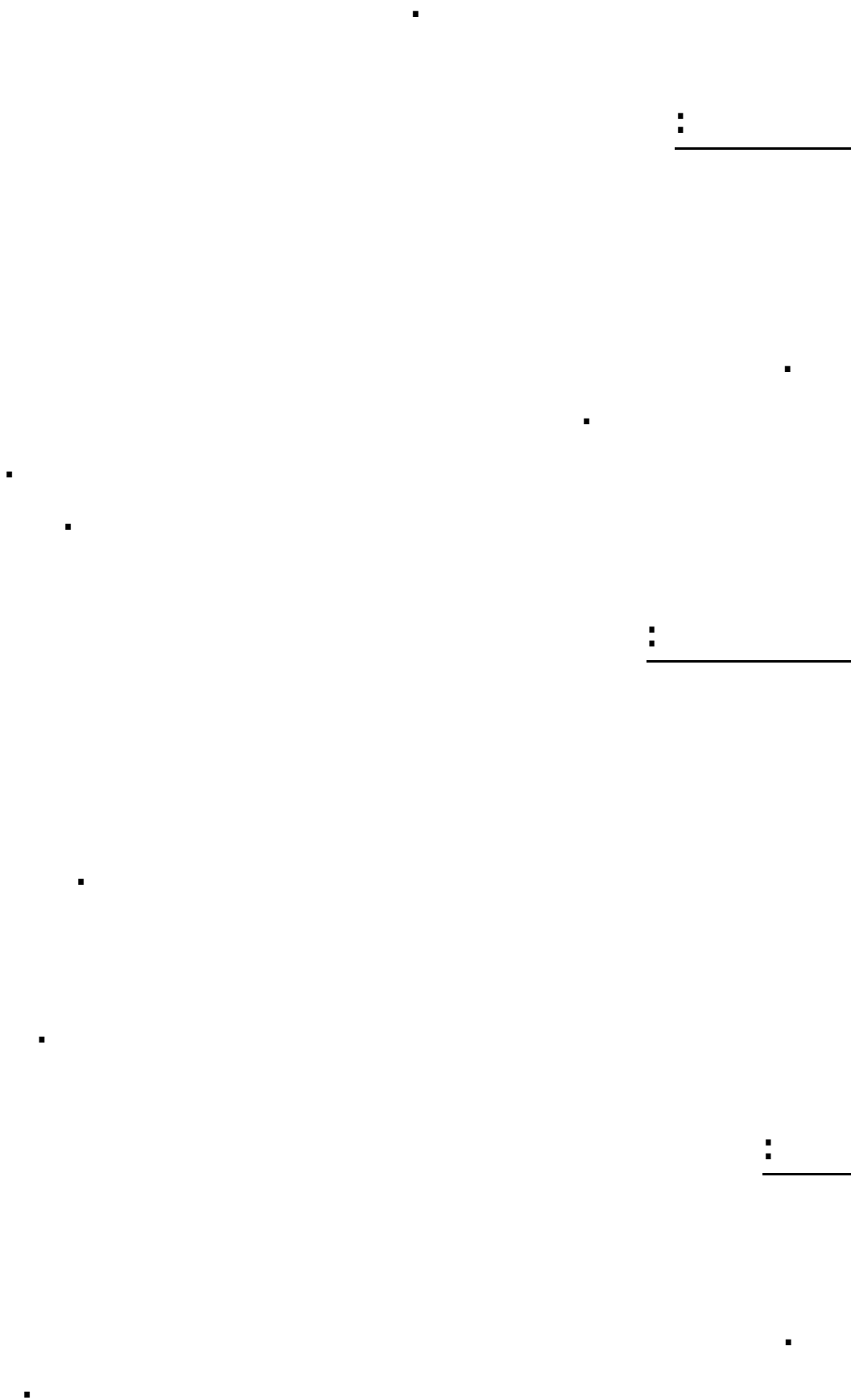
.

.

:

:

.



▪

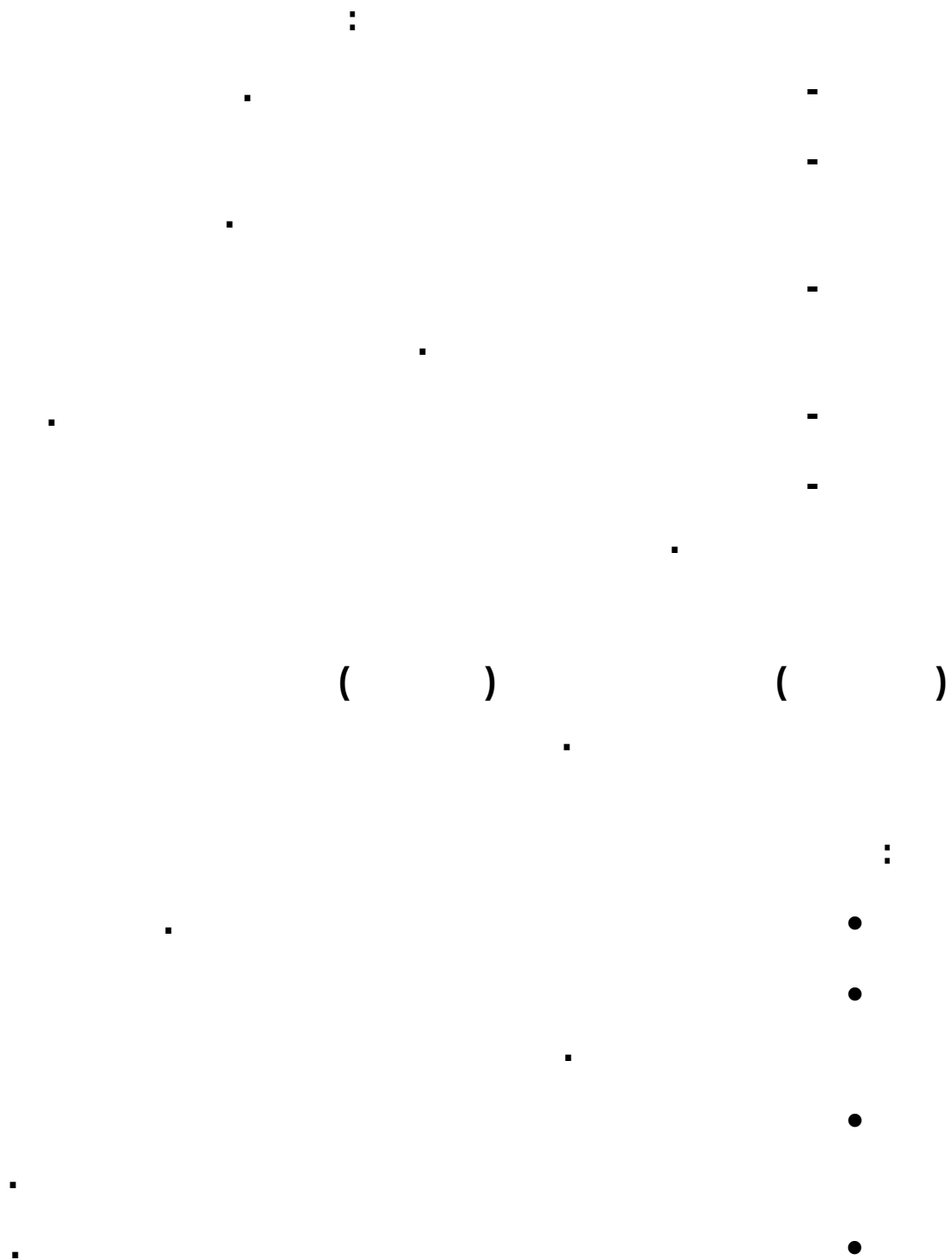
▪

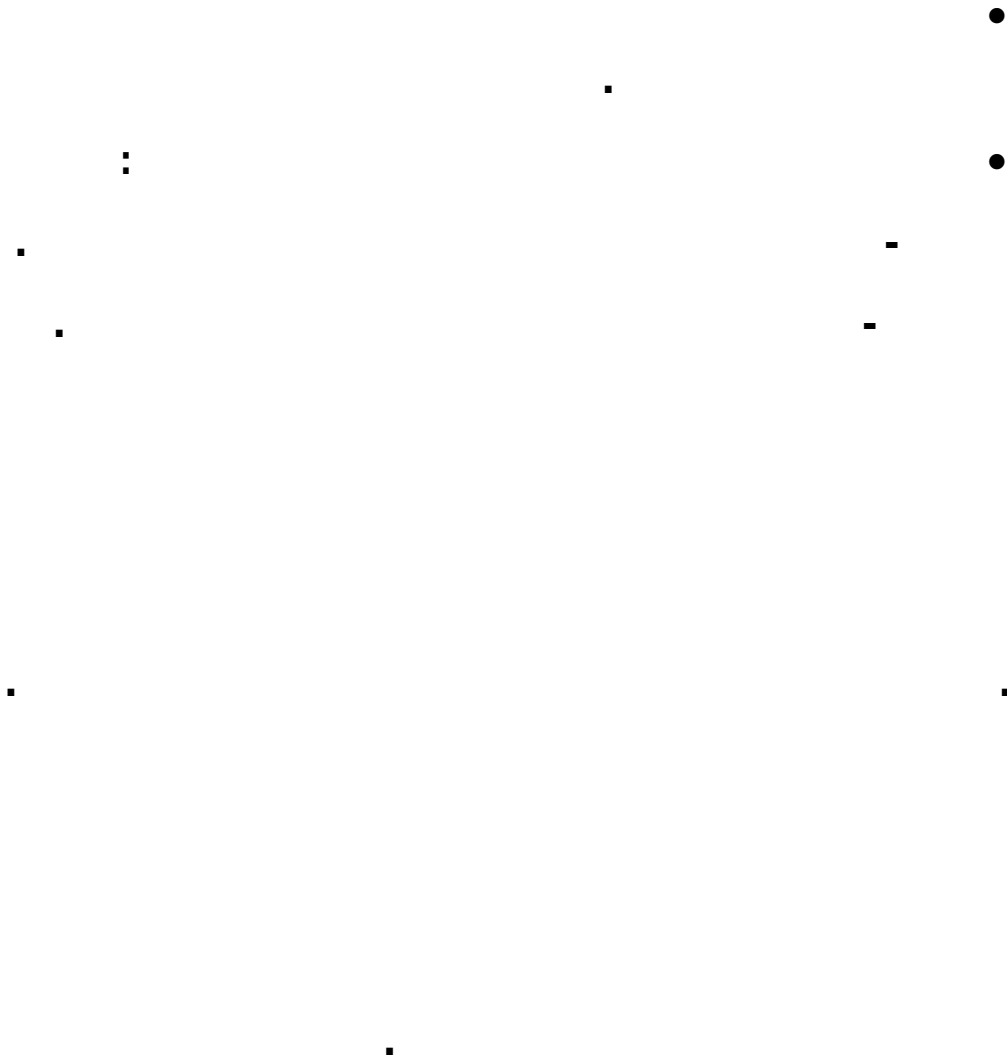
▪

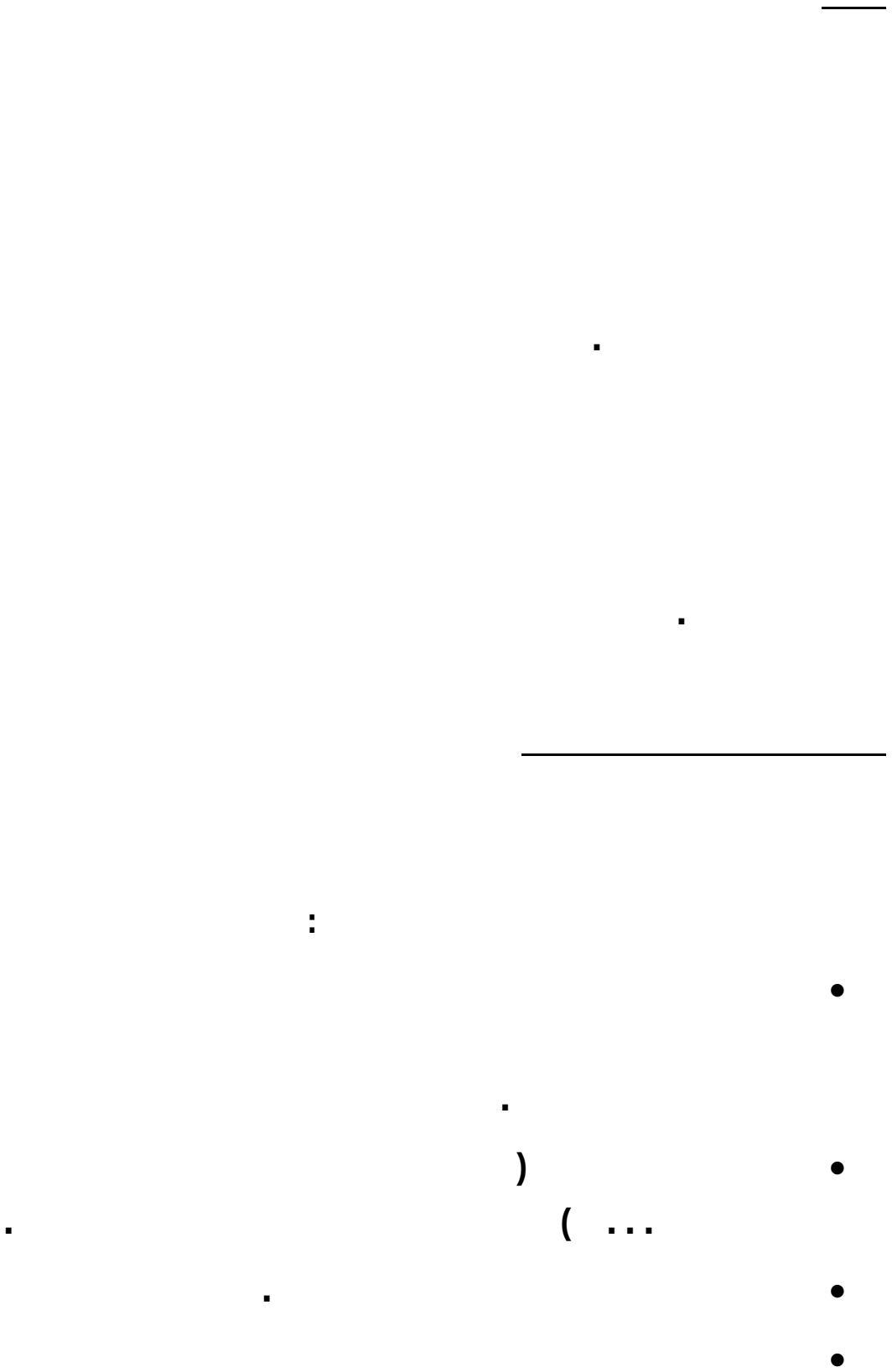
▪
▪

▪

▪
▪







■

●

■

⋮

●

■

●

■

●

(■)

■

●

■

●

■

●

■

●

■

●

1

□

□

)

(

1

(

)

■ ■

■ ■

●

■

●

■

●

■

●

)

45 (25

▪

▪

▪

(...

)

.()

•

—

—

▪

•

▪

•

▪

⋮

⋮

⋮

⋮

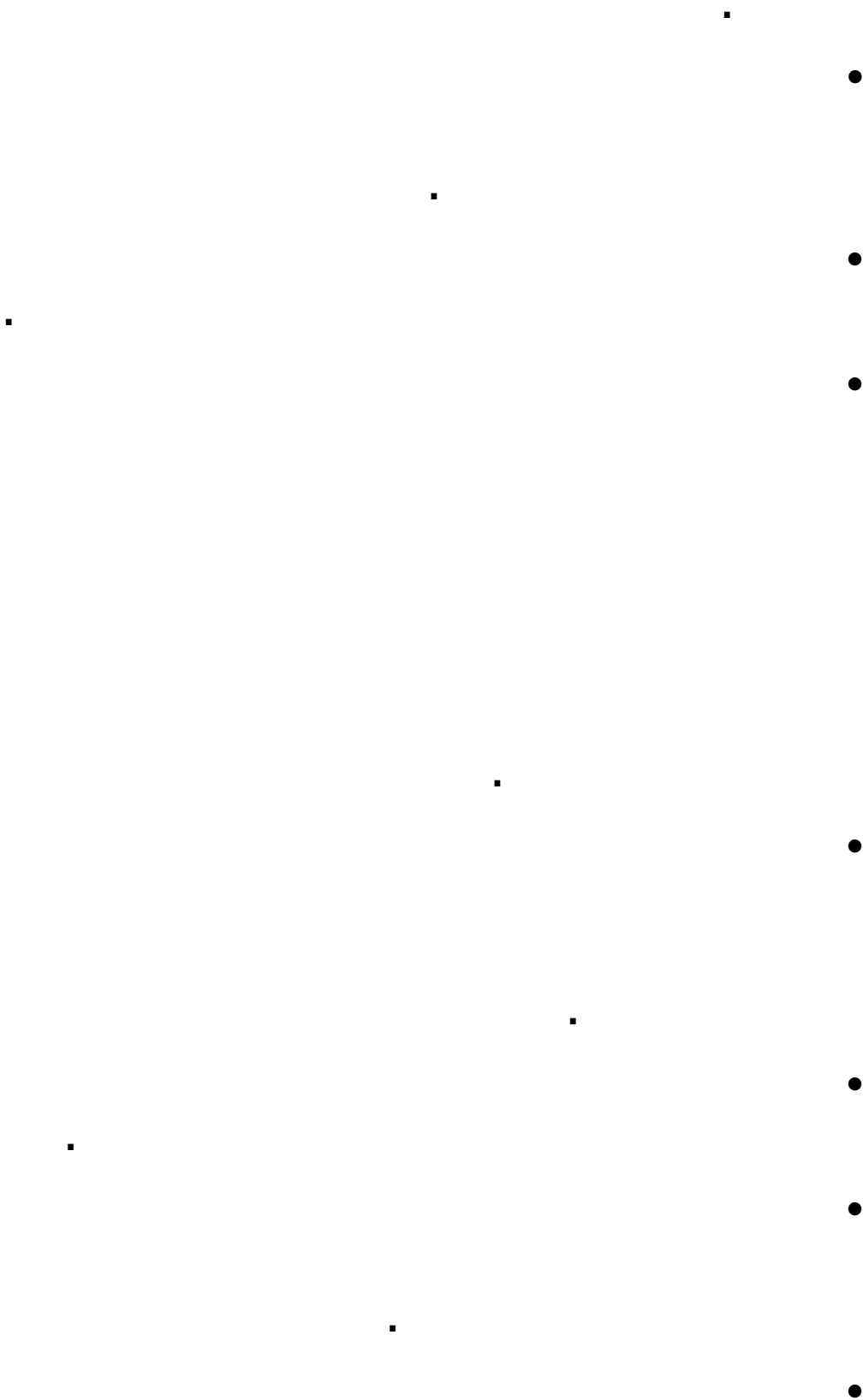
•

■ ■

—

■

■



■

1

1

■

1

●

●

1

●

■

●

1

●

■

●

1

●

▪ (—)

●

●

■ ■

■ ■

●

3-2

)

(

.

.

•

⋮

⋮

•

⋮

-

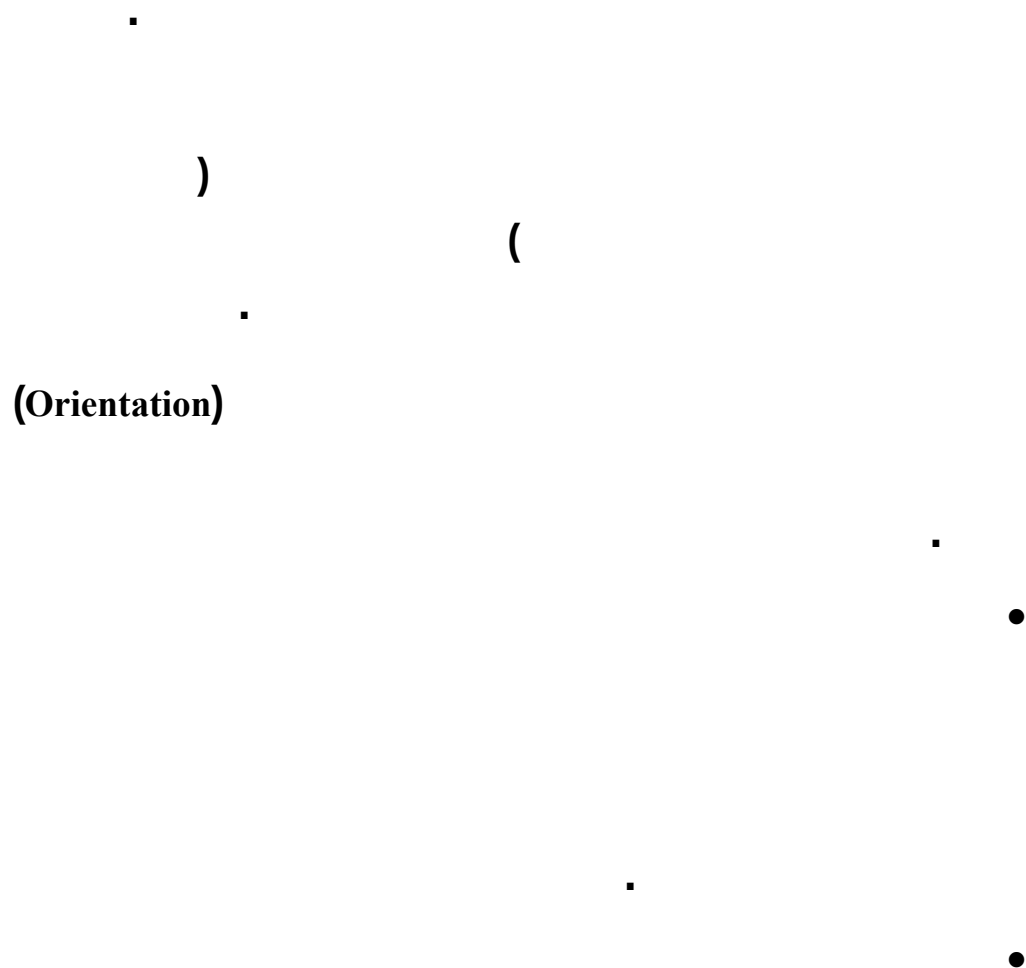
.

-

.

-

.



■

■

■

⋮
—

▪

—

▪

▪

⋮

⋮

—

-1

▪

▪

$$\frac{\begin{matrix} \cdot \\ \cdot \\ \cdot \end{matrix}}{\begin{matrix} \cdot \\ \cdot \end{matrix}} = -2$$

$$\frac{\begin{matrix} \cdot \\ \cdot \end{matrix}}{\begin{matrix} \cdot \\ \cdot \end{matrix}} = -3$$

%79 .0

$$\begin{matrix} \cdot \\ \cdot \end{matrix} = \begin{matrix} \cdot \\ \cdot \end{matrix} \cdot 2 - 5$$

$$\begin{matrix} \cdot \\ \cdot \end{matrix} = \begin{matrix} \cdot \\ \cdot \end{matrix} \cdot 2 - 5$$

•

:

-4

.()

•

•

•

•

•

•

•

:

▪ .1

(-) .2

▪ .3

▪ .4

▪ .5

:

:

:

•

▪

•

▪

▪

•

■

●

■

●

■

■ ■ ■ ■

●

■

■
■
■

■

■
■

●

%73
.%13

()

⋮
⋮

⋮
⋮

●

▪

●

▪

●

▪

●

▪

▪

▪

●

▪

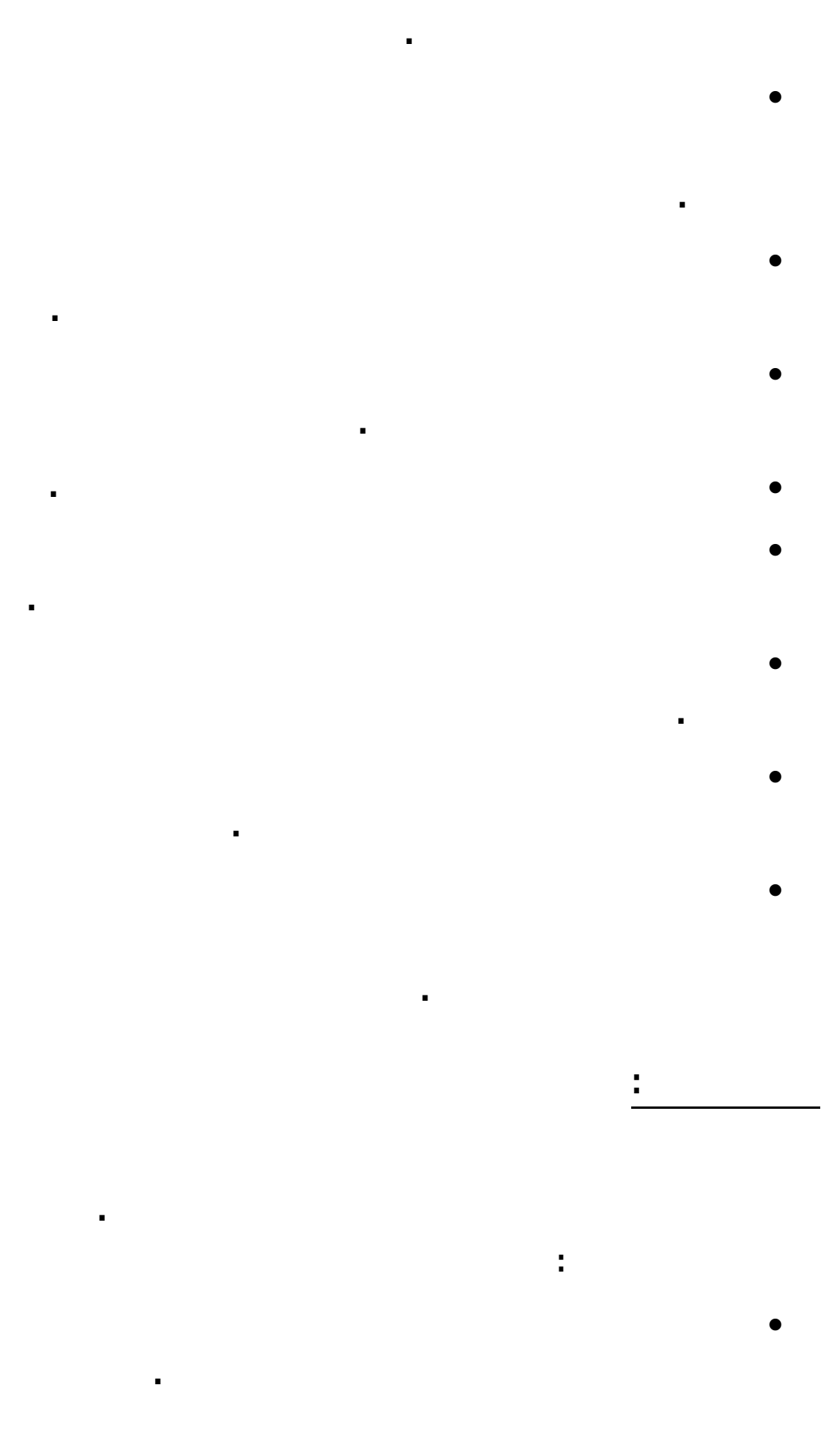
●

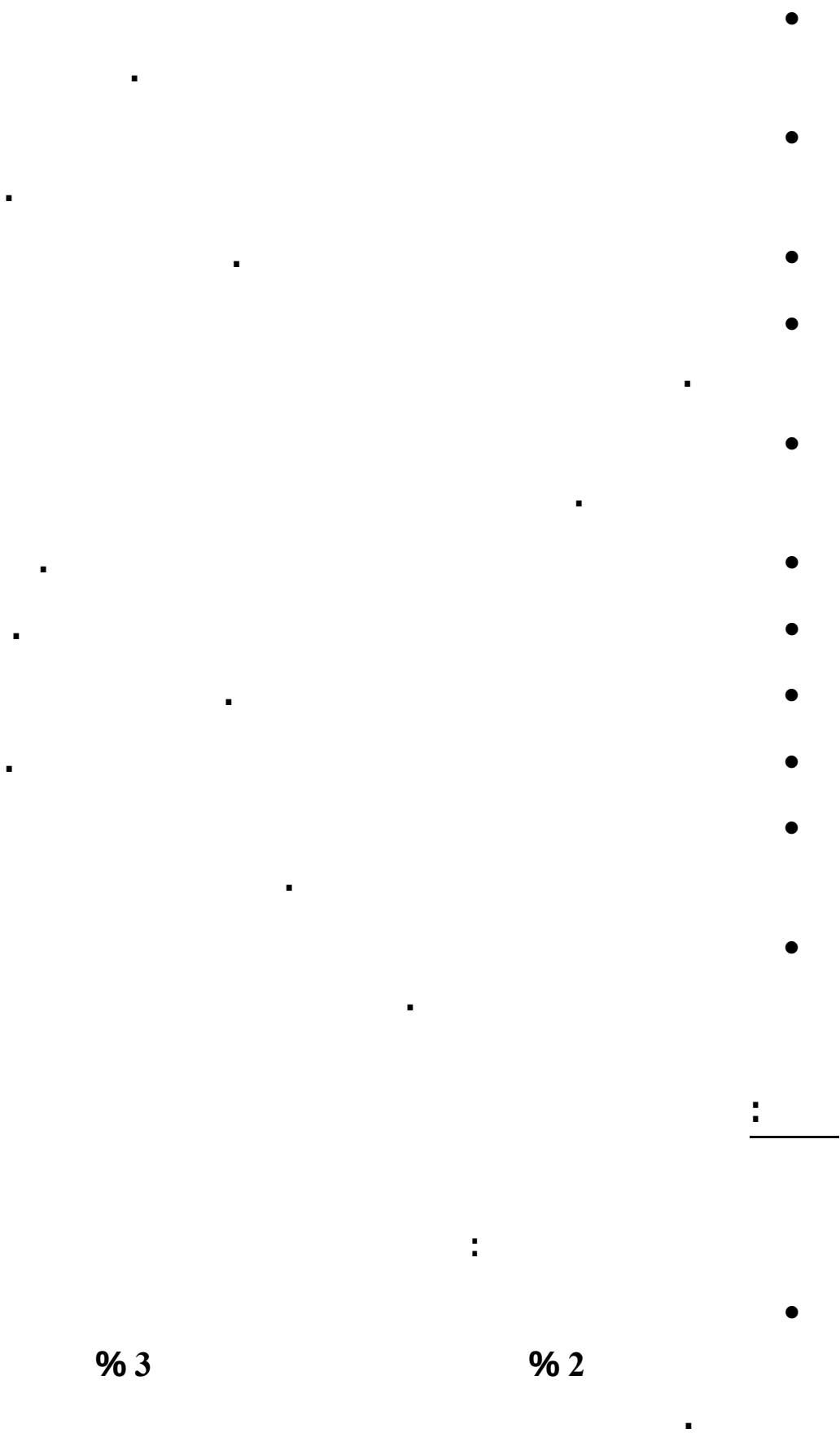
▪

●

▪

●





●

1

●

■

■

●

■

(5-4)

1

●

■

●

■



●

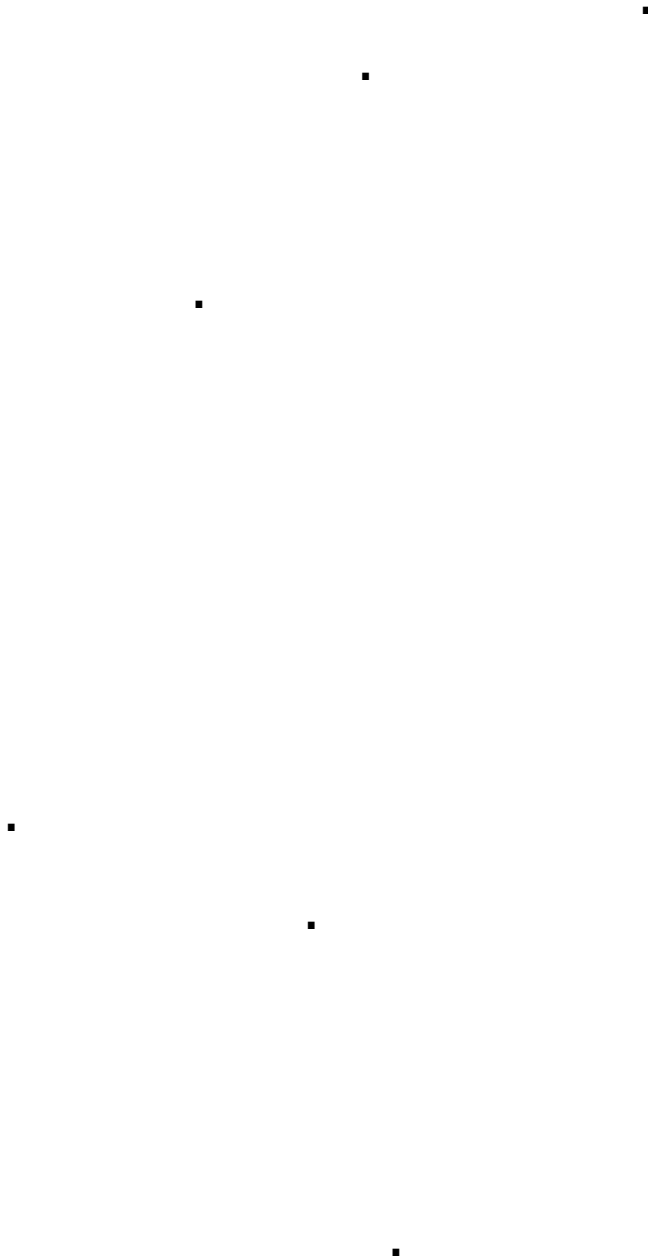


●

■

■ ■





Country Colleges

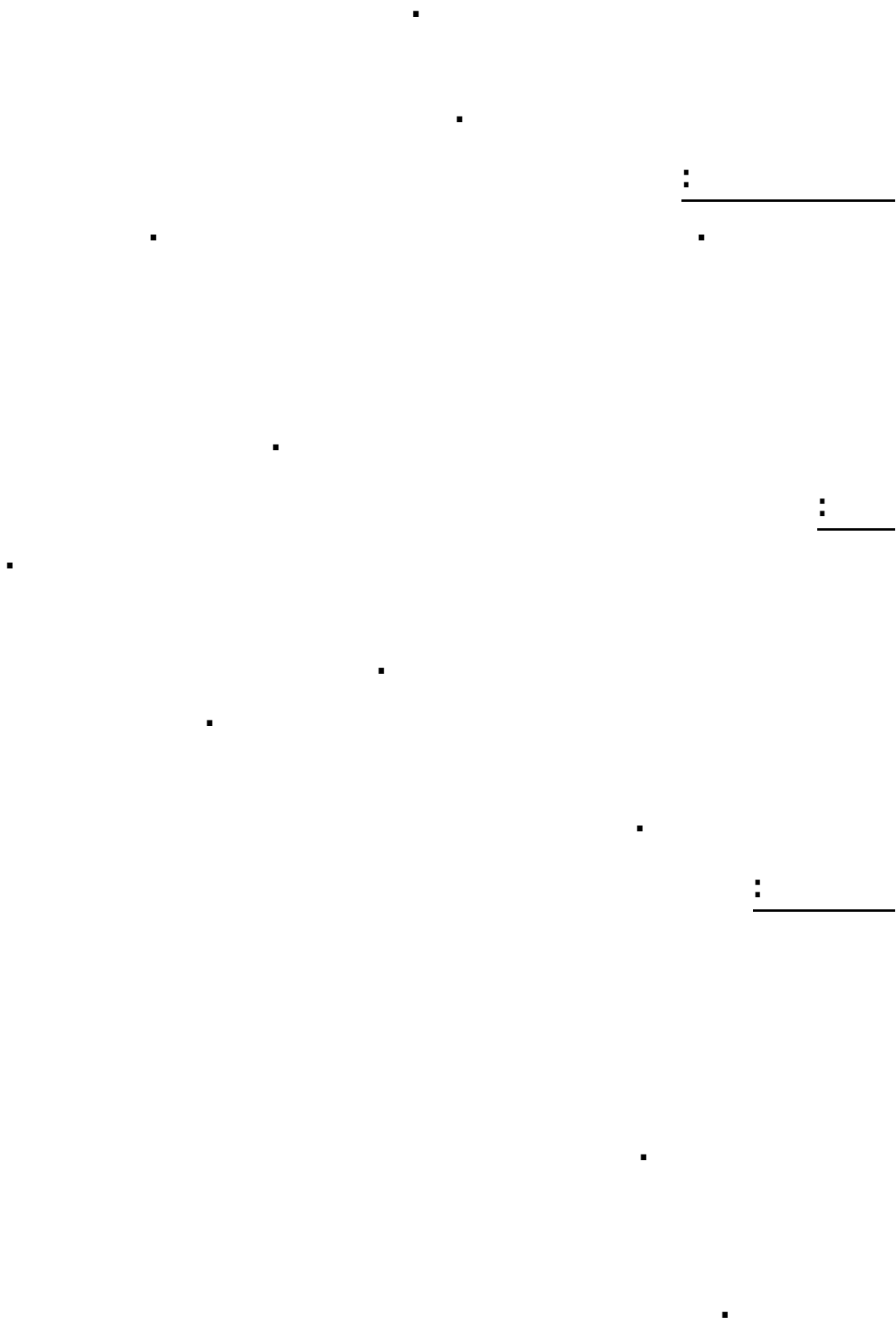
discipline

Multidisciplinary

Crossdisciplinary

Interdisciplinary

Transdisciplinary





■

■

■

●

■

■

■

⋮
⋮

▪

▪

▪

⋮
⋮

▪

▪

▪

▪

▪

1919

1944

110

1952

1964

1990

1970

■

■

■

■

■

▪

▪

▪

▪

▪

▪

▪

▪

•

45-14

()

▪

•

(..)

▪

•



■

■

■

■

■ ■ ■ ■

■

■

■
■

■

■

■

■

■

■

■ ■ ■

■

▪

⋮

▪ ▪

▪

▪

▪

▪

▪

⋮

⋮

⋮

■

■

⋮
—

“ ”

■

⋮
—

■

■

■

⋮
⋮
—

▪

▪

▪

▪

▪

▪

▪

▪

▪

▪

▪

problem

student centered learning
base learning

▪

▪

▪

▪

▪

▪

▪

▪

▪

▪

▪

▪

Learning outcomes "

"

Inquiry-based learning

Evidence-based practice

▪

▪

▪

▪

▪

▪

▪

▪

▪

Textbooks

▪

■

■

■

■

■

▪

Computer-assisted

instruction

▪

▪

■

■

■

■

■

■

■

▪

▪

▪

▪

▪

.
 - -
 .
 :

)
 . (. . .
 .
 /
 .
 .

IFLA Voucher Scheme

Multimedia

▪

▪
▪

▪

▪

consortia

▪

▪

special networks

	Extranet	Intranet
Portals	world wide web	

▪

▪

▪

(ILL)

Celano, Donna and Neuman, Susan. 2001. *The Role of Public Libraries in Children's Literacy Development: An Evaluation Report*. Harrisburg: Pennsylvania Library Association, <http://www.statelibrary.state.pa.us/libraries/lib/libraries/Role%20of%20Libraries.pdf> (accessed November 30, 2004.)

Lonsdale, M. 2003. *Impact of school libraries on student achievement: a review of the research, a report for the Australian School Libraries Association*. Melbourne: Australian Council for Educational Research, <http://www.asla.org.au/research/research.pdf> (accessed November 29, 2004).

Mcloughlin, Carla, and Morris, Anne. 2004. "UK Public Libraries: Roles in Adult Literacy Provision." *Journal of Librarianship and Information Science* 36(1): 37-46.

Midiavilla, Cindy. 2003. "Homework: Student Access is Coming From a Neglected Source. Here's What the Public Library Can Do for You." *School Library Journal* 49(3): 56-59.

Johnson, Richard K. 2004. *Open Access: Unlocking the Value of Scientific Research*. Paper presented at the New Challenge of Research in Libraries: Collection Management and Strategic Access to Digital Resources, University of Oklahoma, March 4-5, 2004, http://www.arl.org/sparc/resources/OpenAccess_FKJ_preprint.pdf (accessed November 27, 2004).

2004 **10 – 8**

■

■

■

■

▪

▪

▪

“

2004

”

10 – 8

▪

48

▪

▪

1949

.2000

: 2020

•

▪

23 18 %50 •
%30 2
%50

▪ 35

6 4 %100 •

▪

▪

•

•

▪

•

51

10

14 12

▪

35

•

▪ 25

•

▪

•

▪

•

▪

•

▪

•

()

▪

•

▪
•
▪

▪

▪

▪

▪

regulatory

:

5

-1

.

.

-2

. 70

-3

HARVERD and MIT

.

-4

▪

-5

▪

-6

▪

4

12

▪

-7

▪

▪

▪

▪

“

2004

”

10 – 8

▪

⋮

•

/

▪

•

▪

1984

▪

▪

23

18

%30

%50

▪

%51 5

%45

▪

6330

4500

50

74

15

()

60

7

90

15

.

.

.

.

“ /
”
2004 10 – 8

/

.

.

/

.

/

.

▪

2.1

38

5.15

:

-

▪

-

▪

/

34

17 .

.

%7

%5 .2

%93

.

.

40

%30

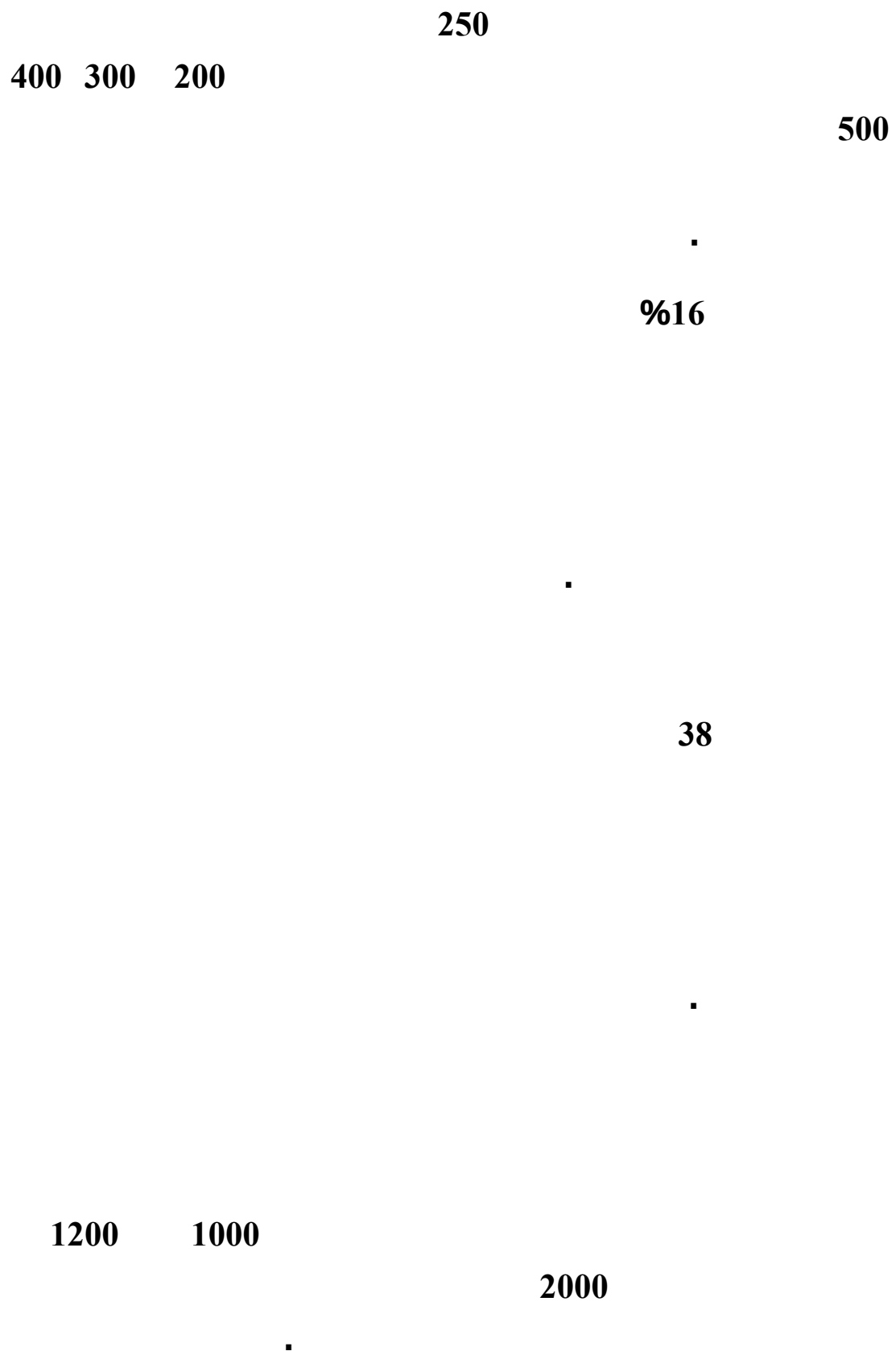
70

60 50

/

25

500



800

%200 150

.

80

.

/

%64 % 60

850

▪

/

150

▪

▪

▪

1993

1996

1994

121

/

"

"

2004

10 – 8

/

/

/

▪

▪

20

▪

▪

/

25

1979

2004

▪

▪

/

▪

▪

▪

/

▪

▪

▪

/

1999

40

225

10

6

1800

230

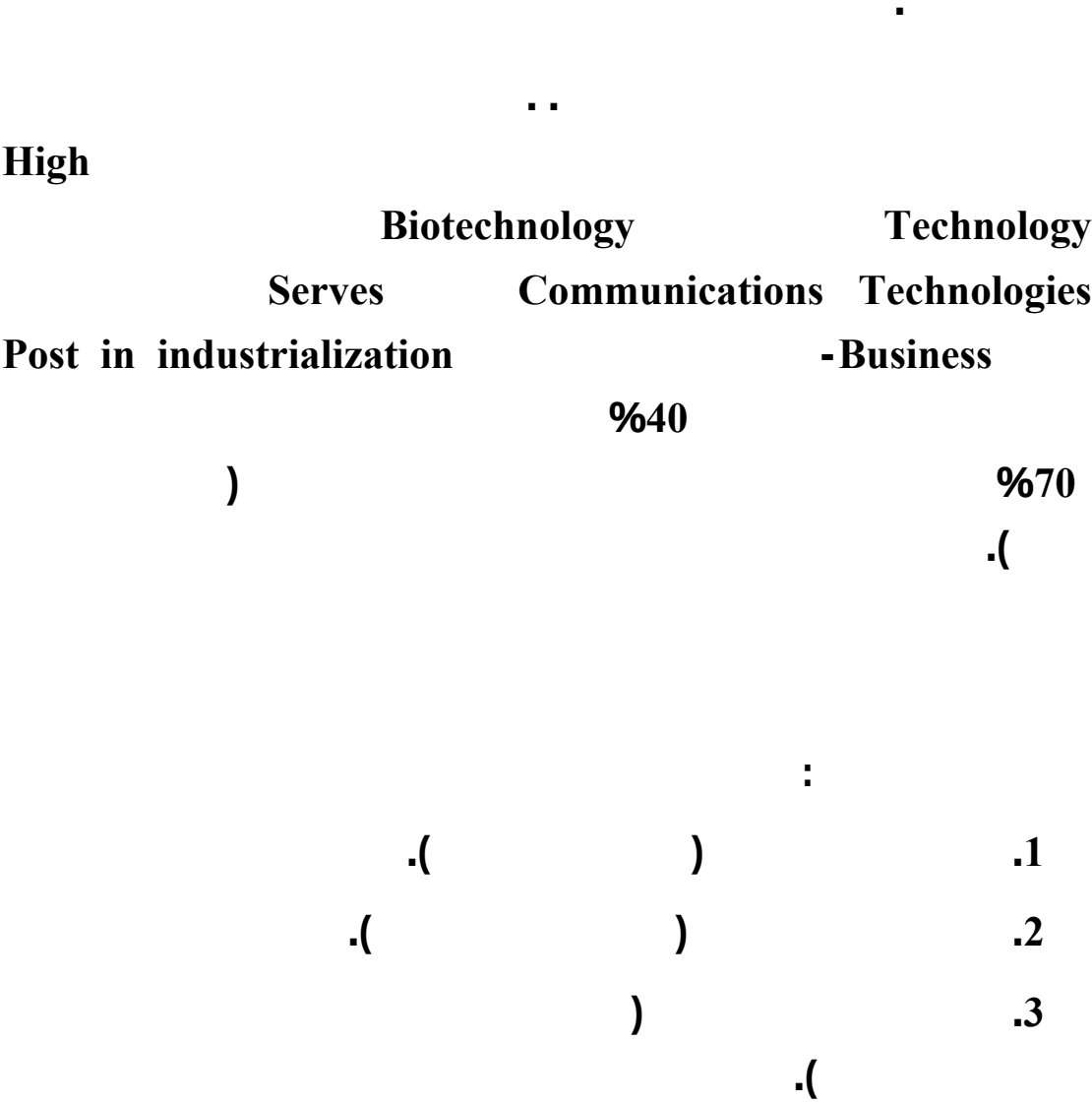
10

▪

▪

1962

Knowledge Work Force



Open Selection System

⋮

60

▪

1990

▪

▪

▪

a nation at risqué

▪

Science Education Standards

130

▪

260000

▪

()

▪

1966

Red guards

()

1976 ()

1998

1978

▪

1300

67

121

60

450

"

"

▪

▪

456

250

MIT

▪

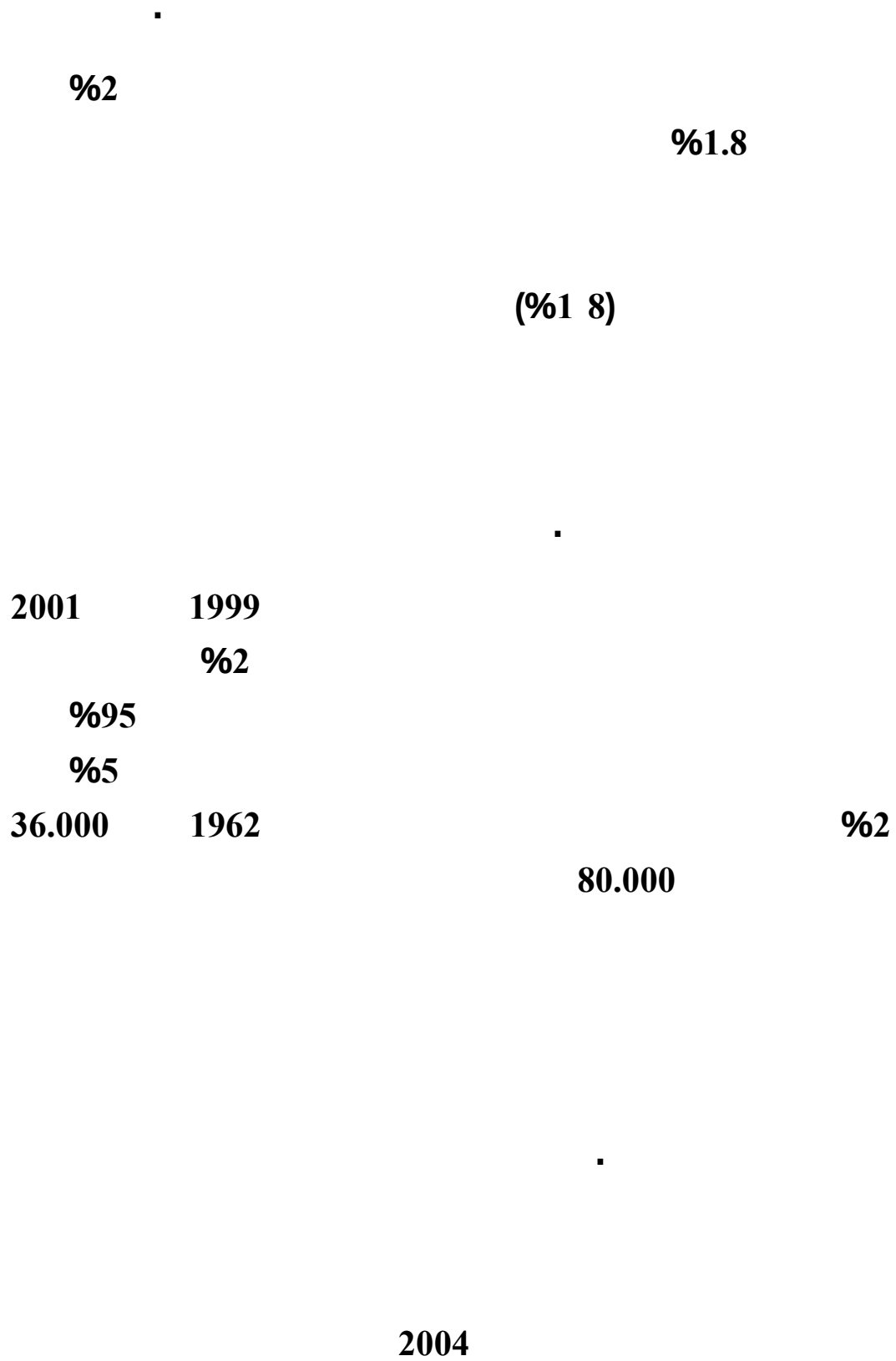
2200

4300

27

22

5



▪

▪

.Marketing

▪

%1

▪

Bill Gates 1978

.Microsoft Corporation

Internet on wheels

%75

/

▪

.% 5

%7 .6

digital 500
1 : 19

PDF format

/
Hole in the wall

12 6

30

- - - - -)
(

.

:

.

Building bridges

2005 .creative & imagination

26

.

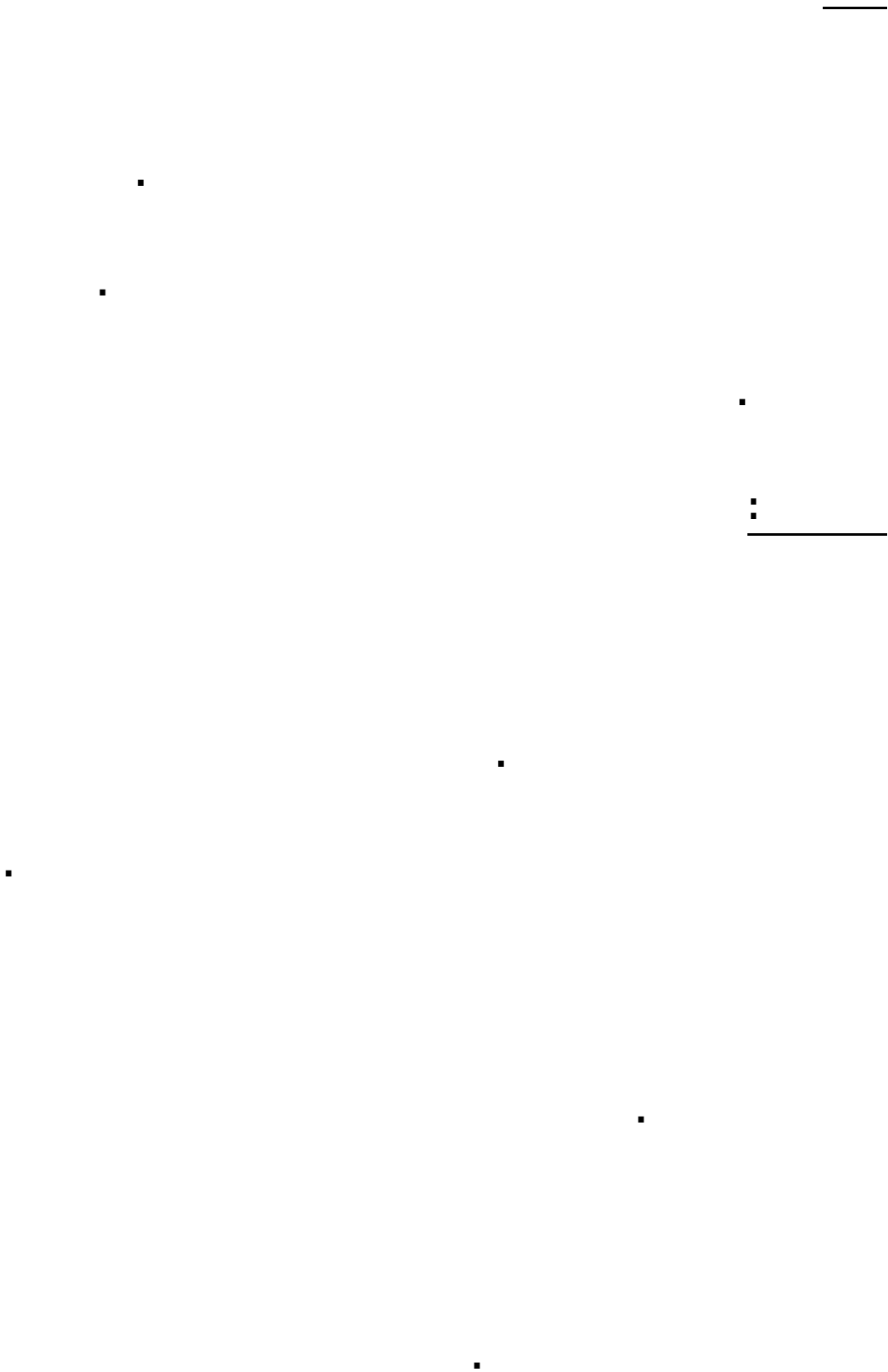
Jam Watso

DNA

.

1900

/



()

▪

▪

▪

▪

▪

▪

▪

▪

▪

▪

—

□
□

■ ■

-1

()

□ □

()

-2

.

$$\frac{\vdots}{-3}$$

)

(

)

(

.

$$\frac{\vdots}{-4}$$

.

$$\frac{\vdots}{-5}$$

.

.

.

$$\frac{\vdots}{-6}$$

.

■

■
■

■
■

■

■

■

■

■
■

■
■

■
■

:-1

.

.

:(PTA)-2

.

.

:-3

.

.

:-4

.

.

2003

.

$$\frac{\quad}{-5}$$

.

$$\frac{\quad}{\quad}$$

.

$$\frac{\quad}{\quad}$$

$$\frac{\quad}{\quad}$$

.

.

-

-

■

■
■

■

■

■

■
■

■

■

■
■

▪

▪
▪

▪

▪

▪

-

-

•

Community College

▪

•

▪

•

■

⋮

⋮

■

■

⋮

■

⋮

■

⋮

■

■

(ICSU) (IAP) (TWAS)

•

▪

•

▪

•

▪

▪
▪

▪

■

■

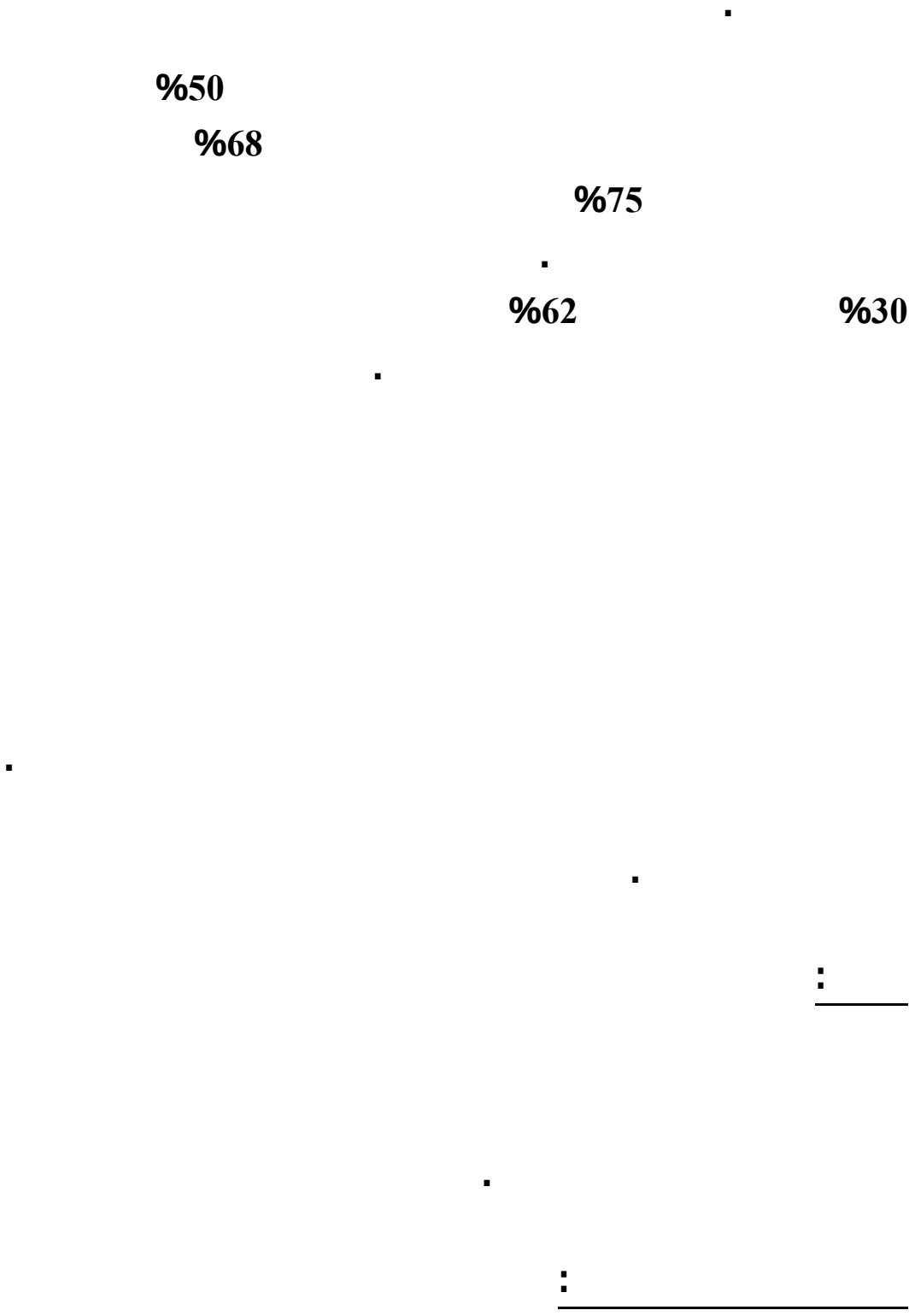
■

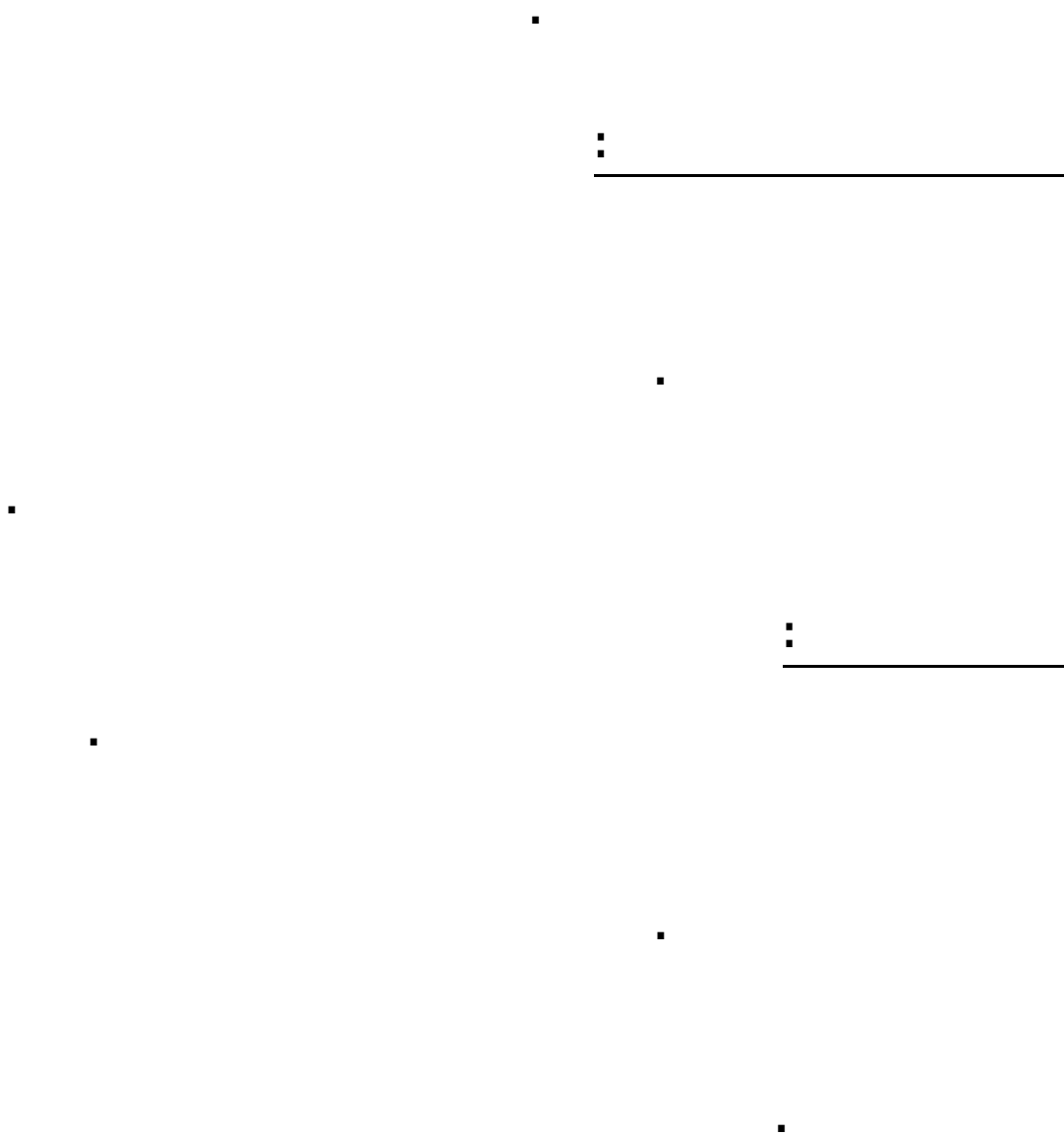
■

■

〃

〃





⋮
⋮

20

▪

⋮
⋮

▪

▪

⋮
⋮

▪

▪

⋮

J-Store, MIT

•

▪

•

▪

•

▪

•

▪

■

●

■