



Provincial Department of Education - Sabaragamuwa - Weekly School

Subject - Information and Communication Technology

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Grade - 8

Week - 21

Number systems

1) Review exercises

1. What is the number system that uses only two symbols? Name the base of the number system and the symbols used.
2. What is the base of the octal number system? What are the symbols used?
3. Name the number system we use for everyday calculations. Name the base of the number system and the symbols used.
4. What is the number system that uses sixteen different symbols? Name the base of the number system and the symbols used.

2) Represent the following numbers in a calculation frame

- | | |
|------------|--------------|
| I. 47510 | VI. 101112 |
| II. 86910 | VII. 1010102 |
| III. 68110 | VIII. 111112 |
| IV. 100510 | IX. 1011012 |
| V. 472310 | X. 11010112 |

2) Expand the numbers represented in the calculation frames in (2) above.

4) Convert the following decimal numbers to binary numbers.

- | | |
|----------|-----------|
| I. 475 | VI. 256 |
| II. 869 | VII. 512 |
| III. 681 | VIII. 760 |
| IV. 100 | IX. 920 |
| V. 384 | X. 128 |

5) Convert the following binary numbers to decimal numbers.

- | | |
|-------------|---------------|
| I. 101112 | VI. 1100102 |
| II. 1010102 | VII. 10101012 |
| III. 111112 | VIII. 1111102 |
| IV. 1011012 | IX. 1110012 |
| V. 11010112 | X. 1100112 |