



Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

- ✓ Convert between binary and decimal.
- ✓ Understand base-2 and base-16.
- ✓ Use place values in binary.
- ✓ Recognise different number bases.



Section A • Concept Check

• BEGINNER

$4 \times 1 = 4$

- Binary 110 in decimal is:
☐ A. 6 ☐ B. 110 ☐ C. 3 ☐ D. 12
- Binary 10000 in decimal is:
☐ A. 10 ☐ B. 16 ☐ C. 32 ☐ D. 8
- Decimal 12 in binary is:
☐ A. 1100 ☐ B. 1010 ☐ C. 110 ☐ D. 1001
- Base-16 is also called:
☐ A. binary ☐ B. octal ☐ C. hexadecimal
☐ D. decimal



Section B • Problem Solving

• INTERMEDIATE

$2 + 3 \times 3 = 11$

- Binary is base-_____.
- Binary 110 = _____ in decimal.
- Convert binary 110 to decimal.

- Convert binary 10000 to decimal.

- Convert decimal 12 to binary.



Section C • Challenge

• CHALLENGE

5

- Convert decimal 20 to binary.



Reflection — the most useful thing I learned: _____

A ___/4 B ___/11 C ___/5 Total ___/20

Teacher's Signature

Parent's Signature

✂ ANSWER KEY — FOLD OR CUT BEFORE HANDING OUT

1-A 2-B 3-A 4-C | 5 2 6 6 7 = 6 8 = 16 9 = 1100 | 10 = 10100