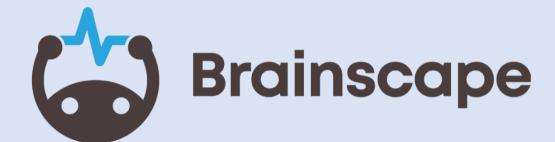
Brainscape



- Go to the flashcards page on bpcompsci.com
- Log in to Brainscape with your college Google account

Brainscape



- The flashcards have been split into sets to match when we teach the content
- We would recommend starting with only 1 set enabled
- When we have finished enough content to unlock a new set, we will have a short test on the content from the set just finished. 30 marks, 30 minutes.
- The first Brainscape test is in the week beginning 10th November

Starter

1. Convert –45.5 into two's complement binary. Write your answer using one byte, with one bit after the binary point

•

2. Convert $6\frac{11}{16}$ into two's complement binary. Write your answer using one byte, with 4 bits after the binary point

•

Starter

- 1. Convert –45.5 into two's complement binary. Write your answer using one byte, with one bit after the binary point
 - 1010010.1
- 2. Convert $6\frac{11}{16}$ into two's complement binary. Write your answer using one byte, with 4 bits after the binary point

•

Starter

- 1. Convert –45.5 into two's complement binary. Write your answer using one byte, with one bit after the binary point
 - 1010010.1
- 2. Convert $6\frac{11}{16}$ into two's complement binary. Write your answer using one byte, with 4 bits after the binary point
 - 0110.1011

Topic 4.5 – Data Representation

Binary Multiplication

4.5.4.2 Unsigned binary arithmetic

Content	Additional information
 Be able to: add two unsigned binary integers multiply two unsigned binary integers. 	

$$0 \times 0 = 0 \times 1 = 0 \times$$

$$0 \times 0 = 0$$
 $0 \times 1 = 1$
 $1 \times 0 = 1$
 $1 \times 1 = 1$

$$0 \times 0 = 0$$

 $0 \times 1 = 0$
 $1 \times 0 = 1$
 $1 \times 1 = 1$

$$0 \times 0 = 0$$

 $0 \times 1 = 0$
 $1 \times 0 = 0$
 $1 \times 1 = 0$

$$0 \times 0 = 0$$

 $0 \times 1 = 0$
 $1 \times 0 = 0$
 $1 \times 1 = 1$

Reminder of decimal column method

Binary column method

Binary column method

Note: Binary multiplication is just a sequence of shifts and adds of the first operand





1101 × 11

100111



10101 × 101



10101 × 101

1101001



11101 × 10111



11101 × 10111

1010011011

Topic 4.1 – Programming

Procedures with Parameters

```
PROCEDURE Potato(quantity)
  PRINT quantity & " potato"
END PROCEDURE
PROCEDURE Main
  Potato(1)
  Potato(2)
  Potato(3)
  PRINT "4"
```

END PROCEDURE

Writing procedures with parameters

```
static void AskForAge(string name)
{
   Console.WriteLine("How old are you, " + name + "?");
   int age = int.Parse(Console.ReadLine());
}
```

Label:

- Procedure identifier
- Parameter
- Local variable
- Statement

PRIMM

- Predict
- Run
- Investigate
- Modify
- Make

Subroutines with Parameters PRIMM

This worksheet is on Google Classroom.